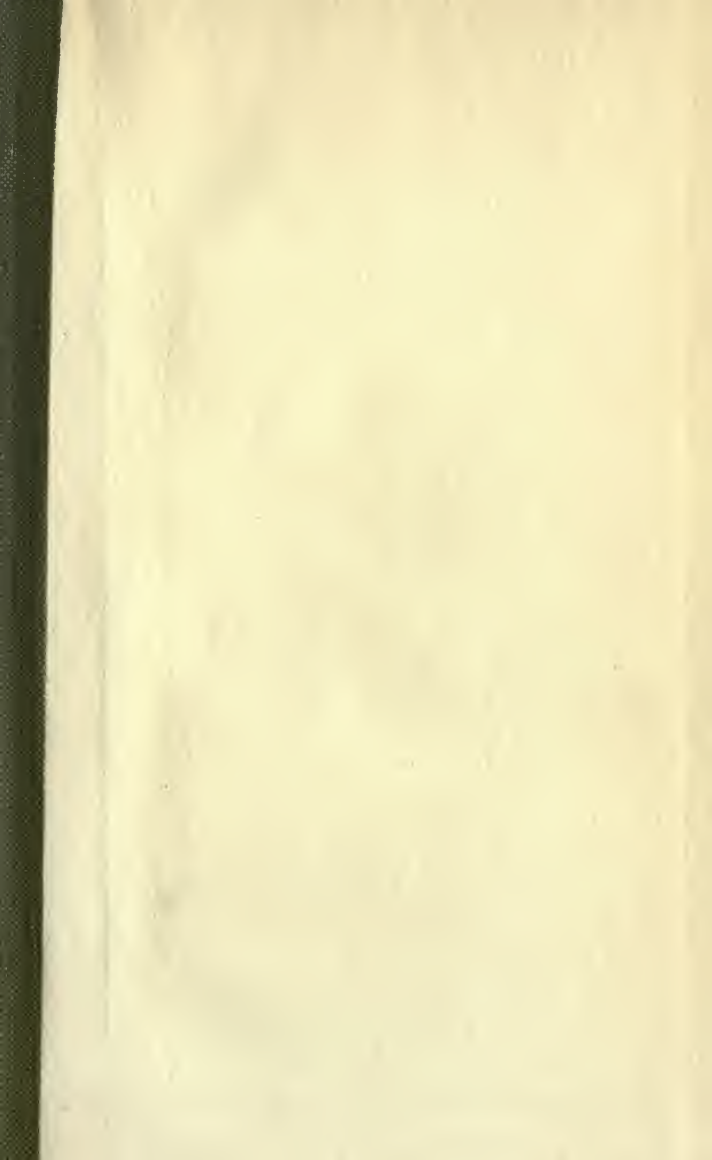


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NUMISMATIC NOTES AND MONOGRAPHS

1



COIN HOARDS

By SYDNEY P. NOE

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THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
NEW YORK

1920

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NUMISMATIC

NOTES & MONOGRAPHS

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The Sacking of a City, from a Burgundian Tapestry.

COIN HOARDS

BY

SYDNEY P. NOE



THE AMERICAN NUMISMATIC SOCIETY
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COIN HOARDS

BY SYDNEY P. NOE

THERE is no branch of numismatics which would have a greater appeal to the average man than the study of hoards and treasure trove. To some it will cause surprise that such material should need study. Not so to the archaeologist or the historian, who often has had reason to be grateful for the data supplied by coin finds. The presentation of some of the causes of hoarding and of the deductions we may draw from recovered buried treasure is submitted that the value of some of these results may be made clearer.

We Americans, probably because we are without many opportunities of such a nature this side of the water, find this subject of especial interest. To be sure, the treasuries of the Incas of Peru which

have been unearthed included the precious metals in many forms but nothing that has been identified as currency. The tumuli of the Maya and Aztec civilizations of Central America will some day yield rich returns to the investigator, but the material heretofore secured is archaeological or ethnological, and, like that of Peru, has included little of a numismatic nature. In both cases, the finds are more closely analogous to those of ancient Egypt where the accounts often prove more thrilling than fiction. It stimulates the imagination to read of unrifled tombs where lie haughty princesses of long ago. Their jewels and the implements of their daily life were placed near at hand in readiness for the after-world, but food and drink were considered more necessary than gold. Only with the burials of the later and least interesting period does numismatic material occur. This is owing to the fact that the early money of the Egyptians consisted of bullion in an unminted form whose exchange value was determined by weight. During the Per-

sian domination, the darics and sigloi of the invaders seem to have been in use to a limited degree, but finds show also that the early coinage of the Greeks circulated to a much more considerable extent.

Although finds of coin do not occur in this country as frequently as in Europe, one of the basic causes of these burials, hoarding, is not so foreign to our experience as might be supposed. Only when a hoard has been buried is there a chance of its becoming treasure trove and we are not accustomed to burying our savings. Civilization has accustomed us to other means of safekeeping, and experience has approved them satisfactory. In the cities, our savings are placed in banks or safe deposits. Let there be a run on the bank, however, and we see a return to primitive conditions — deposits are withdrawn as quickly as possible; and until confidence in some other institution overcomes the distrust caused by the failure, money is hoarded just as carefully as it was in the time of the Greeks and Romans. When we turn from a section remote from city

life, to districts far removed from the conveniences which civilization affords, there is little difference from the procedure of the Ancients. Among the miners, hiding gold-dust becomes a necessity. So even to-day hoarding is not as exceptional a thing as it is thought.

In its essence, hoarding is a habit. Although paper money and banks have made it much less common, one of its milder forms tends to confirm it as an instinct only a little less deeply rooted than that of preservation of life itself. There is hardly one of us who has not caught himself picking from a handful of change some of the new pieces designed by Weinman, MacNeill and Fraser and spending first the corresponding specimens of the earlier and far less attractive coinage. It must be conceded that this is a very mild form of hoarding, but so universal is this tendency and so far reaching is it in its results, that economists have formulated it as a law. It is known as Gresham's Law and was so named after the Commercial Adviser of Queen Elizabeth.

"In every country where two kinds of legal money are in circulation, the bad money always drives out the good."

That this was merely a re-expression of something recognized by the Greeks we learn from Aristophanes (*Frogs* vv 718-726, Brunck's ed.), who, using the practice to point a moral, says

"The public has often seemed to us to treat the wisest and the best of our citizens just as it does old and new coins. For we do not use (spend) the latter (new, uncirculated coins) at all except in our own houses or abroad, though they are of purer metal, finer to look at, the only ones that are well coined and round; on the contrary, we prefer to use (spend) vile copper pieces, struck and stamped in the most infamous fashion."

The explanation of our preference for new or fine coins, offered by the distinguished French economist Gide (*Political Economy*, Veditz' Second American Edition, 1909, p. 238), is worth quoting:

"Money is not destined, like other wealth, either for our consumption or for production, but solely for exchange. Of two fruits, we prefer the more luscious; of two watches, the

one that keeps the better time. But of two pieces of money, unequal in quality, it matters little to us whether we use the one or the other; they are not for our personal use, but only employed to pay our creditors and our tradesmen. Hence, it would be foolish to use the better money for this purpose; on the contrary, it is to our interest to choose the worse, and this is precisely what we do. Our choice is of course conditioned upon the assumption that the creditor or tradesman shall not have the right to refuse inferior money; in other words, the bad money must have paying power as well as the good. When this is the case, *i.e.* whenever both kinds of money are legal tender, Gresham's law is applicable.

"This explains why bad money continues in circulation, but not why good money disappears. Where does the good money go? It disappears in three different ways: by *hoarding, payments abroad, sales by weight.*"

Now, since hoarding is one of the initial causes of coin burials and, consequently, of coin finds, it may be well to consider it further. Let us bear in mind that although Gide was writing from the standpoint of modern rather than of ancient history, the universality of the practice makes his words applicable to very early

periods, and coin finds confirm this. To quote further :

“When people want to put money aside for possible emergencies, *i.e.* when they want to keep it for themselves, they do not pick out the bad pieces to save. On the contrary, *they choose the best*, because these offer the best security. The panic-stricken people who wished to hoard money during the French Revolution did not waste their time saving depreciated paper money, — the so-called assignats, — but laid aside gold coins. The contemporaries of our Revolutionary War did not save the next to worthless ‘continental’ paper money, but whatever metallic money they could get hold of. Banks do the same thing, preferring to increase their supply of good rather than that of poor money. In this manner a considerable amount of the good money may disappear from circulation.”

Gide’s conclusions, moreover, are worth repeating. We find good money being driven out by bad.

a) “Whenever worn money is in circulation with *newly coined* money. It was in this case that the law was first discovered by Sir Thomas Gresham. New coins had been struck to take the place of those in circulation, which were greatly depreciated (far more by clipping than

by wear); and it was noted with dismay that the new coins disappeared speedily, while the old ones seemed to be more abundant than ever. Unless a government resorts to frequent recoinages, it will encounter great difficulties in replacing old and abraded coins by new ones.

b) "Whenever *light money* is in circulation together with good money or even when good money is in circulation together with heavy money, in this case the lighter money drives out the other."

A singular working out of Gresham's law has occurred in France as a result of the late war. Because of the let-up in silver production, without any diminishing of the demand, the value of silver had risen until the bullion value of silver coins in our own, and in most of the European countries, was above the face value of the coin. As a result, the silver pieces have been disappearing from circulation, the melting pot being their presumable destination. As each issue of the French mint appeared, the coins were speedily absorbed and seen no more.

To meet this condition, a rather novel plan was announced by the French mint on

April 15, 1920. Instead of continuing the issuing of silver coins, the French Chambers of Commerce are putting out a token coinage, guaranteeing the redemption of these metal tokens by deposits at the Bank of France. Not only should this reduce the incentive to hoarding and make the melting of the new coins no longer profitable, but it should gradually bring a reduction in the price of silver by decreasing the demand.

Since May 1920 the price of silver has fallen considerably. One contributing cause is doubtless the changing of the standard for India from a silver to a gold basis, thus eliminating one of the largest markets for silver. The action of the French authorities as described above is probably another contributing element as is also the decision of Great Britain to reduce the quantity of silver in subsequent coinages. With the incentive to return to the pre-war mining output, the supply is likely to become normal. All these factors have doubtless contributed towards the fall in the price.

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	<p data-bbox="298 282 958 404">With this fall, inducement to hoarding passes and a return to usual conditions will in all likelihood follow gradually.</p> <p data-bbox="298 409 958 1043">If during the stringency, however, some peasant of rural France, distrusting the banks and fearing a panic, should have buried his savings, this hoard would afford a true reflection of these conditions. The currency from which it would be possible to make his savings, could not but evidence the scarcity of coined money in circulation, and in countless ways, the measures to which the French financial authorities were driven to meet conditions, would be demonstrated. It is this unconscious testimony of coin finds, as I trust we shall see, that provides us with some of our most valuable information.</p> <p data-bbox="536 1085 679 1113">BURYING</p> <p data-bbox="298 1139 958 1387">Only hoards that are buried are likely to become treasure trove. Therefore, it is with imperishable metallic currency that we are concerned. As we have seen, modern conditions have tended to remove the incentives to hoarding. These circum-</p>
	N U M I S M A T I C N O T E S

stances have so become a part of our daily life that it requires an active imagination to conceive the contrasts under which the ancient peoples lived. Every man was his own banker. The Greeks and Romans did have bills of credit and bankers of standing. A few transactions were arranged through bankers without a transfer of money, but owing to the difficulties of travel and the need for protection in even the most highly civilized sections, the guarding of one's wealth was a very important part of the civic life. They had much less money to handle and this increased rather than lessened the care with which it was guarded. It is recorded that the Greek soldier received as his pay a daric for a month's service.

In a very interesting lecture by the eminent Dr. George Macdonald, read before the Royal Philosophical Society of Glasgow in 1903, he analyzes three of the causes why hoards are buried, as assigned in the Digest: Profit, Safety and Fear. Reasoning very carefully, Dr. Macdonald points out that only in the event of the death of the

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	<p>owner, would any hoard buried either for profit or safety, be likely to have been unearthed. With the third motive, Fear, however, we have a different reaction, and fear was an ever-present element in the life of the ancient people.</p> <p>We cite two of Dr. Macdonald's illustrations :</p> <p>“When Cassius captured Rhodes, he confiscated not only all the bullion belonging to the state or dedicated in the temples, but the gold and silver of all private citizens as well. The result promised to be disappointing. For, Appian tells us, when the alarm was first given, the citizens had gone and concealed most of their money. Cassius, however, was not to be over-reached. He offered large rewards for the discovery of hidden hoards, and inflicted the death penalty on those who had concealed them. When the Rhodians saw that the victor was not to be trifled with, they begged for an extension of the time for the surrender of their property. This was granted, and thereupon, says Appian, a very much larger quantity of money was forthcoming — ‘some digging it up from holes in the ground, others drawing it from the bottom of wells, others again producing it from graves.’ What happened at Rhodes in 42 B.C., must often have happened elsewhere.</p>
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The laws of ancient warfare took little regard of the rights of private property, and in times of danger a most natural instinct would lead men to bury their treasure underground, seeing that it would no longer be safe in their houses. When the storm burst, some of those who had thus concealed their goods would be slain or carried into captivity, leaving unclaimed deposits to be turned up centuries afterwards by the spade of the workman or the plough of the peasant.

"I said that the instinct to bury treasure underground in times of danger is a most natural one. . . . I suppose that everyone will agree that there never was a more 'human' man than Mr. Samuel Pepys. His diary for the early days of June, 1667, reflects the alarm caused throughout London and all over England by the Dutch raid on the Thames. On the 10th their ships were at Sheerness, 'and we do plainly at this time hear the guns play.' Again on the 13th. 'No sooner up but hear the sad news confirmed of the Royale Charles being taken by them, and now in fitting by them . . . and turning several others; and that another fleet is come up into the Hope. Upon which newes the King and the Duke of York have been below (London Bridge) since four o'clock in the morning, to command the sinking of ships at Barking Creeke, and other places, to stope their coming up higher: which put me into such a fear, that I presently resolved

of my father's and wife's going into the country : and, at two hours' warning, they did go by coach this day, with about Thirteen Hundred Pounds in gold in their night bag. Pray God give them good passage, and good care to hide it when they come home! But my heart is full of fear. They gone, I continued in fright and fear what to do with the rest.' A little later in the day he decided. 'I did, about noon, resolve to send Mr. Gibson away after my wife with another 1,000 pieces, under colour of an express to Sir Jeremy Smith.' I shall not quote further, but simply refer you to the Diary for the sequel. The money was duly buried in the garden as Pepys had instructed, but the manner of doing it was not at all to his mind, and led to one of the little matrimonial differences which he so faithfully records. Under dates, Oct. 10th, 11th, 12th, of the same year, you will find full details as to the troubles he encountered in digging it up again."

As an additional illustration of the reasons for secreting treasure, I submit the evidence offered by a Burgundian tapestry, dating from 1400-1450, in the possession of the Metropolitan Museum of Art. The subject is the sacking of a city. From the analogy which the incidents offer to the description of the sacking of Jerusalem as

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Container of the Southants Hoard.





Detail of Burgundian Tapestry.

given by Josephus, it is somewhat hesitatingly identified as such, and the presence of a portable tabernacle, possibly intended to represent the Ark of the Covenant, lends color to this identification.

Whether the intended subject is the sacking of Jerusalem or not need hardly concern us at present. More pertinent is the close following of the description given by Josephus (Wars of the Jews, Book V, Chapters 10 and 13). The distinguished historian relates that after the capture of Jerusalem, many of the Jews swallowed pieces of gold and jewelry to prevent them from falling into the hands of the Romans. The conditions which resulted when this knowledge came to the ears of the Roman general are such as were depicted in the tapestry. The chest of golden vessels should be noted as well as the host apparently awaiting treatment similar to that accorded the kneeling figure in the central foreground. The frontispiece enables us to dispense with a description of the gruesomeness of the scene. One wonders whether the victims may not have

served as a terrible example in the hope that there would result an unearthing of treasure similar to that described in connection with the capture of Rhodes. Certainly, there seems to be a free passing of coin from hand to hand.

That such conditions were far from uncommon in those early days we may well believe. What wonder then that the savings of the people were buried? When for any reason the owner succumbed in battle or as a victim of chance, his hidden savings have become the source from which we now derive so much benefit.

FINDINGS

In considering conditions which conduce to hoarding, as well as the reasons for the burial of the hoards once they have been made, an interesting question arises as to whose property such a hoard is when it is discovered. What have been the laws regarding treasure trove throughout the countries of Europe in which finds are common?

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We have a very satisfactory knowledge of the Roman law, and it is interesting to note that the Romans considered the question with characteristic thoroughness. The very liberal law established by Hadrian is known to us in what is practically its actual wording. According to its ruling, a private individual became the owner of treasure discovered on his property. If, however, he discovered the treasure on another person's land, the finder shared equally with the owner in the division, and this held good even though the land on which the discovery was made belonged to the State. The laws varied with the changing Emperors, most of them claiming a portion of any treasure discovered. A brief summary of the laws among the Romans was published in the Numismatic Chronicle, 1902, by Messieurs A. Blanchet and H. A. Grueber.

During the Middle Ages, the King claimed a right to treasure unearthed in his dominions, although sometimes his rights were assigned in behalf of one to whom the land had been given in fief.

Thus, Henry II granted to the Monastery of Ramsey

“To receive sac and soc (the right of holding a court), thol and theam (market and the issue of the bondsmen), forstal (the intercepting on the highway), blodwith (a fine paid as a compensation for bloodshed) and the *finding of treasure*; and likewise all other privileges which belong to the King.”

The decrees of St. Louis assigned treasure trove of gold to the King, but of silver to the Baron. The working out of this, however, is very indefinite and we may well believe that except with finds of exceptional value no word ever reached the ears of the authorities.

For England, Blackstone's definition will bear quotation as the foundation principle:

“Treasure is where any money, coin, gold, silver, plate, or bullion, is found hidden in the earth, or other private place, the owner thereof being unknown. And in such a case, the treasure found belongs to the Crown; but if he that hid it be known or afterwards found out, the owner, and not the Sovereign, is entitled to it. It is the hiding, and not the abandonment,

that gives the King the property; for if a man scatters his treasure into the sea or upon the surface of the earth, it belongs not to the Sovereign, but to the first finder. Formerly, indeed, treasure trove, whether hidden, lost, or abandoned, belonged to the finder; but afterwards it was judged expedient, for the purposes of the State, and particularly for the coinage, to allow part of what was so found to the King — which part was assigned to be all *hidden* treasure, as distinguished from such as was either casually lost or designedly abandoned by the former owner.”

It is the working out of the later adaptation of this excellent English law which has provided the material for the exceptionally complete arrangement of the early coinage of the British Isles. England is in advance of most other European countries in this regard. Under the present laws, the Crown claims the right to treasure trove, but a fairly liberal offer is made to the finder who fully and promptly reports a discovery and turns the whole of it over to the authorities. The basis of the finders' reimbursement is no longer the bullion value of pieces comprised in the find, but their antiquarian value. This has re-

sulted in making it to the interest of the finder to report his discovery to the authorities. Thereby, he receives much more than would be the case if he merely melted it for its metal content, a procedure preferable under the former conditions because it dispensed with the interference of the authorities. When a find is received at the Treasury, it is forwarded to the British Museum and there classified. Pieces desired for the National Collection are set aside and paid for at their market value; the remainder, also, is valued and returned to the Treasury for such disposal in the coin market as seems wise. The result of this procedure is that finds come to the British Museum in their entirety. Being able to study them with the knowledge that the complete hoard is present is a consideration difficult to overestimate.

In France, under a law of 1887, the State assumes ownership of every object found in its domain upon consideration of refunding one-half its value to the finder. In Italy, also, the State possesses the right

of preëmption, but as the indemnity offered by the State is small, the result is unsatisfactory. Finds of treasure instead of being reported are concealed from the authorities, and any scientific benefit that would come from knowledge of the contents is thus lost. Although in Asia Minor excavations have been carried out on a broad scale, the officiousness of the Turks has made it difficult to derive much information regarding finds unless they are small enough to escape the attention of the officials.

Receptacles in which hoards are hidden vary widely. The smaller hoards are usually found in earthen jars; often, they are broken in the finding, but the protection they have afforded accounts for the unusual condition in which some of the ancient coins come down to us. Sometimes the vessel is of bronze, and if the soil be a dry one, the oxidation of the jar may not have advanced to such an extent that its contents are affected. In one case the jar had so disintegrated that the weight of the gold coins it contained was

greater than it could stand, and the gold pieces fell like Danae's shower when it was raised. In another case, a small hoard was found protected by a horn, and in one other instance, about a pint of small coins was discovered in a leathern bag further protected by a broken iron pot. Hoards have sometimes been brought to light by the washing away of a river bank or the blowing down of a tree. One of the strangest discoveries was made when an old oak beam which had been stacked away for years after its removal from a demolished building was split for firewood; a hole which was filled with English gold coins was disclosed, and a little further along in the same beam a second hole also filled with gold coins was found. As may be imagined, this brought a very pretty question as to the ownership of the coins. In the British Isles, finds have been discovered in wooden boxes, but these are hardly likely to last over very many centuries. Like bags of cloth, they vanish, leaving the material they contain subject to the action of the soil.



Container of the Vourla Hoard.

The places in which hoards are found vary almost as much as the containers for them. One might think that remote and secluded hiding places would be sought, and this is often true. One find was buried in the crater of an extinct volcano. Another was found eight feet below the surface of the bed of a river while excavating for a new bridge at Bologna. In this case, it was surmised that the owner must have been drowned and that a change in the bed of the river had accumulated that amount of earth. During the war of 1914-1918, several hoards were discovered in digging trenches.

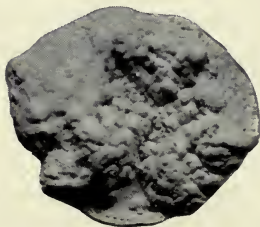
The difficulties of concealing some of these hoards must have been considerable, for the hoard of Brescello is said to have contained eighty thousand aurei, all struck between the years 708 and 716 of the Roman era. Finds are frequently discovered while digging foundations in the modern survivals of ancient cities. Frequent finds have been made in this way at Taranto. The varying conditions, manifold forms and peculiar circumstances

which surround each coin find, make them fascinating subjects of study. They are being utilized more and more by numismatists but even yet their value is not fully realized.

CONDITION

From the specimens which we see in the cabinets of collectors, we are apt to form a very incorrect opinion of the condition of coins when they occur in hoards. Gold coins show effects of burial least. None of the soil acids have sufficient strength to affect gold, and any incrustations are easily removable. Only when in very rare cases the mass has been subjected to compression sufficient to flatten or deface the pieces, are the gold coins likely to show change.

With silver the condition is in contrast, but when the hoard is protected by an earthen or metal container, and when it is buried in a soil that is not moist and which does not contain chemical agents, especially sulphur or chlorine, the surface of the piece would in all probability not show



Encrusted stater of Alexander the Great.
American Numismatic Society's Collection.



any very considerable change. If, however, the burial is made in a volcanic region, the pieces are often found massed together and it is all but impossible to separate them. Often the silver shows pittings or other surface imperfections, but usually enough of the coins are legible to enable the classification of the others. Some of the thin incuse staters of Magna Graecia show a crystalline transformation of the metal. As a result, the coins are so brittle that they break easily.

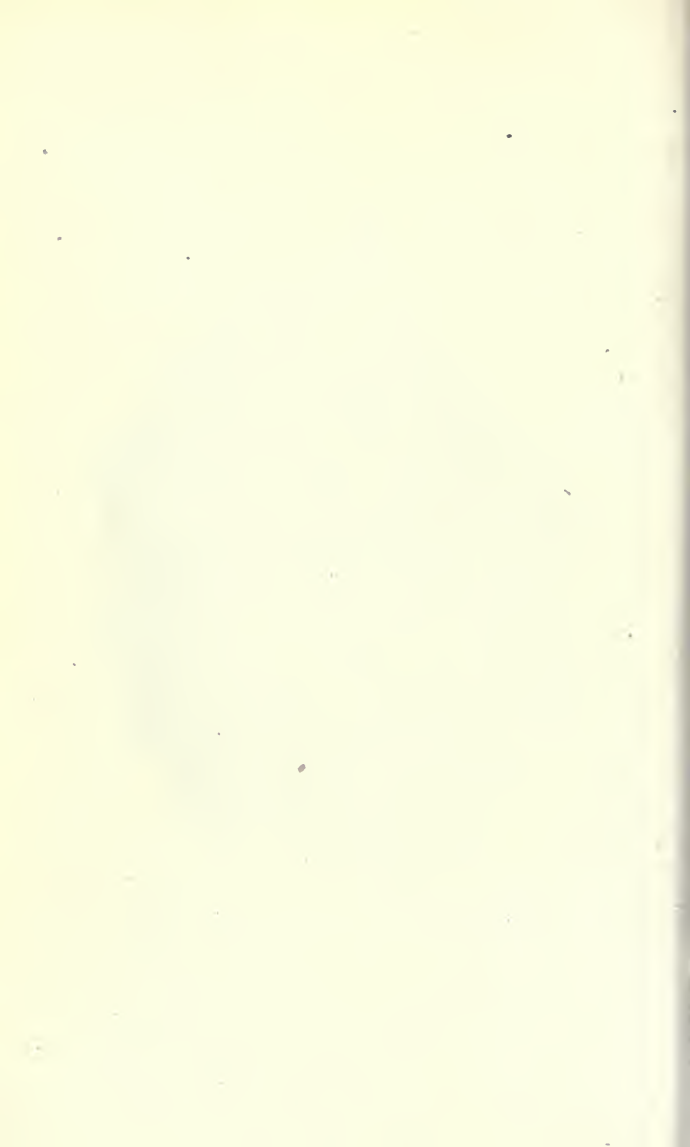
As for bronze in its many forms, (brass, aurichalchum, copper and pieces plated with a light coating of silver) — it suffers most of all. Whenever any moisture is present, oxidation soon takes place, and frequently the bronze coins in a hoard will be matted together into a hopeless mass. Often, they are covered with verdigris, and sometimes it is impossible to free them from the accretions. Occasionally, however — and this is especially true with the many forms of Roman bronzes — they take on a patina which age alone can give. In some places there

results a beautiful turquoise blue, in others a rich warm green, while elsewhere a deep brown tone is acquired. Occasionally lead pieces are found, but, unless they have been very carefully protected, they oxidize and crumble.

In dating coin finds, a great deal of stress is laid upon the condition of the pieces. Those which show the least signs of wear are likely to be the latest in the find. The term *fleur-de-coin* (flower of the die, literally) is used to indicate a piece which shows no sign of wear, and which is, therefore, approximately as it appeared when it left the die. Here, Gresham's law comes into play again, for in making a hoard under ordinary conditions, the brightest and freshest pieces are the ones which would be retained; and as bright coins are likely to be the most recent, the burial of the hoard is presumably to be dated within a short time after such pieces were struck. If there occur pieces of one or more cities whose coinages have been chronologically arranged, and the *fleur-de-coin* pieces



Mass of encrusted Roman bronze coins.
American Numismatic Society's Collection.



in the hoard confirm one another, then there is strong evidence for dating the burial shortly after such coins were struck. With the absence of contradictory evidence on the part of other pieces in the find, one may with confidence rely upon the conclusions thus reached.

Obviously, some of the most important deductions drawn from coin finds are chronological. The reason is apparent when we recall that not until a late period were the Greek coins dated, and that the Roman coins of the Imperial period are dated according to the annual Tribunician Power conferred upon the Emperor. The Consular issues, of course, are without such dating, and in placing these in their proper order, finds have been an indispensable aid. The indications of style are too slight to serve as criteria, and the long list of moneyers includes too many names of those who never achieved enough distinction to entitle them to a place in historical records. Hoards of these denarii are of frequent occurrence. With the coming of the Goths and Vandals, and

throughout the Dark Ages, the coinage of Europe is rarely dated, with the exception of the dinars and dirhems of the Arabs. These are dated from the year of the Hejira (the Flight of Mahommed, 622 A.D.), and as they circulated widely throughout the Christian as well as in the Moslem world from 800-1400 A.D., they aid greatly in placing the other coins with which they are found.

It is hardly necessary to point out the value of having the coins of a city or State arranged in consecutive order. With the Greeks, such arrangement demonstrates their artistic growth from an archaic to a fine style and thence to the decadence of Hellenistic times, for, as has been said again and again, Greek coins form the grammar of Greek Art. The history of the innumerable city states is clarified, especially when the names of the local magistrates begin to appear, as on the late Athenian tetradrachms (229 B.C. to the time of Augustus). In addition, there are valuable sidelights on the life of the people. Coins late in a

series will frequently afford an explanation of types used centuries before. A single instance of the classifying value of finds is submitted.

For many years it has been an open question whether the coins of Lacedæmon with the archaic votive statue of Apollo and some of the succeeding types belonged to Sparta or to Alaria in Crete, the $\Lambda\Lambda$ under the second attribution being considered retrograde. The authorities were divided, and the style offered no assistance. Within the past twenty years, a hoard found in Sparta has definitely established that these coins have nothing to do with Crete.

Aside from these reasons, the chronological ordering is desirable if only for the dating of further finds. It is to classifications such as have been outlined above, that we turn for information in approximating the dates of new finds — Head's coinage of Syracuse for Sicily; of Boeotia for Central Greece; Gardner's 'Elis'; Evans' 'Horsemen of Tarentum' for Magna Graecia; Mommsen and Haeberlin for Pre-Imperial Rome; Sir John

Evans for Early British Coinage; Schlumberger for the Bracteates — all these are of greatest importance in establishing a date for the burial of a hoard in which occur any pieces of the respective series of which they treat. These wonderful arrangements are edifices into which have been built all the knowledge and experience of their authors. Not always is the reasoning which has governed the arrangement given; in many cases it would unduly burden the reader. The stanchness of the whole, however, is its best claim to consideration as a sound piece of construction. Style, fabric, types, peculiarities of inscription, magistrates' and artists' signatures — all these internal evidences are utilized to the fullest extent, while external data, obtained from contemporary writers or monumental inscriptions, is combined with information derived from finds and hoards, to bring about the final result. The ordering of these bits requires the nicest logical discrimination and a freedom from bias such as few investigators possess.

The confirmative value of finds can best be demonstrated by a supposititious case. If we assume three finds each containing coins of one city, and assume again that all three may be dated from the issues of other cities included in the finds, and that these datings mark an interval of fifty years, it is evident that the types occurring in Find B, which are not in A, are likely to have been issued during the interval of fifty years which separates them. This will, also, hold for Find C as compared with B. By arranging these pieces in three groups, it will be seen that we have a criterion of style enabling the interpolation of other types which do not occur in these finds. With information from other sources and the internal evidences of the coins themselves, we may by all these means arrive at an ordering which will meet with general acceptance.

Commercial lessons which we may draw from hoards promise to be of very great value, but, with comparatively few exceptions, they have not yet been

realized. The whole matter of commerce has hardly been given sufficient weight in our consideration of the early coinages. Babelon shows (*Traité*, Tome I, Parte I, pp. 23, 24) that it has been possible to mark out the commercial routes of the mediaeval merchants from the evidence provided by finds, coupled with the confirmation which the geography of the country supplies. Thus, we know from the hoards of oriental coins throughout Austria, Russia and Sweden the overland route which the Arabs took to reach a far-away Scandinavian market. One of such of these finds numbered over eleven thousand Arab dinars.

Monsieur A. Blanchet has given an admirable demonstration of this use of finds in his very carefully studied essay, '*Recherches sur l'Influence Commerciales de Massalia, en Gaule et dans l'Italie Septentrionale*,' *Revue Belge* 1913. He lists and describes 117 different finds in which the coins of Marseilles, which began as a Greek colony, occur. From the evidence of these finds, he is able to sketch

not only the growth of the commercial influence of the metropolis of Southern Gaul, but to demonstrate the successive steps in its growth. This is possible because the neighboring people imitated the type of Massalia, and by locating the occurrence of these imitations, he is able to define the limits reached by the merchants of this city; and from the types imitated, approximately the time their influence reached this section. His conclusions are borne out by the coincidence that the finds occur along the line of the least geographical resistance.

Most of the deductions which we have been discussing as having been drawn from finds of coins are quasi-historical, and because it is very difficult to distinguish between the information drawn from the finds and that derived from the coins themselves, it seems unwise to insist upon that point in this connection. Let us bear in mind that the ancient coins, especially with the Greeks and Romans, are each of them a historical document. We have for an illustration the confirmative

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	<p data-bbox="285 265 953 688">value of the findings of various hoards of coins along the line of the wall built by the Romans across the northern part of England to prevent the incursions of the Picts. These have contributed to the discovery of traces of that wall. In its political phases, finds have clarified some of the many troublesome questions as to the extent of the mediæval principalities in Germany and Central Europe.</p> <p data-bbox="505 756 733 786">ANADOL FIND</p> <p data-bbox="285 819 953 1369">There are a number of finds of great importance to the history of numismatics, and a brief mention of some of these will not be out of place. One such occurred near Anadol, a little town in Bessarabia, in 1895. Some peasants, when excavating, discovered a bronze vase containing nearly a thousand gold coins of the period of Alexander the Great. What was more important than the number, was the fact that among the 979 pieces which were secured for the Coin Cabinet of the Hermitage, there were 457 varieties, and</p>
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of these, 174 had not been previously recorded. The addition to our knowledge of symbols and monograms was very considerable, and Müller's work on this coinage was made obsolete by the Anadol Find.

AURIOL HOARD

This find was made in 1867. It consisted of 2130 silver coins all uninscribed and all of the Archaic Greek style. They were discovered in an earthen vase. Auriol is only a short distance from Marseilles. The question arose immediately—were these then the earliest coins of that Greek Colony? Although numismatists have not been able to agree in their conclusions about the find, Monsieur Babelon's résumé of the evidence is made with his characteristic thoroughness, and there is slight reason for doubting the date he assigns for the burial (later than 480 B.C. and probably between 470 B.C. and 460 B.C.). Fortunately, a selection of almost all the varieties was secured for the Paris Cabinet where they are avail-

able for study. Monsieur Babelon's account includes the record of finds of similar coins, and his position with regard to them is in all probability the one which will have the widest acceptance.

Le Trésor d'Auriol, et les Principales Trouvailles de Monnaies Grecques Primitives en Occident. Traité — Vol. I, Part 2, pp. 1569-1584.

BOSCOE REALE FIND

Sometimes the circumstances surrounding a find date it absolutely, and then we have a very different angle of approach.

Bosco Reale lies on a slope of Mount Vesuvius and, together with Pompeii and Herculaneum, was buried in the eruption of 79 A.D. One of the villas was unearthed in 1895 in an unusual state of preservation. The wall paintings of the cubiculum of a neighboring estate excavated a few years later are now exhibited in the Metropolitan Museum of Art, New York City. The portion of the treasure consisting of well-preserved vessels of silver in high relief was purchased and given

to the Louvre. This treasure of silver vessels and jewelry was discovered in one of the small rooms in the villa, and not far away there lay a stretched-out body — perhaps the owner, possibly only a faithful slave left on guard. As part of the treasure, there was a small chest containing more than a thousand aurei ranging from the issues of Augustus to those of Domitian. Knowing that the catastrophe took place in the year 79, we have a valuable indication of the types which passed current at that date. It was noticeable that the pieces of Augustus and Tiberius were more numerous than would have been expected and that they were worn smooth through circulation while those of the other and later Emperors were in the finest condition. We have here, then, a burial which was accidental rather than due to fear, and not in the strictest sense a hoard at all. Presumably, it consisted of the “ready money” in possession of the owner of the estate.

VICARELLO HOARD

Some hoards suggest that they have been buried for reasons which do not give evidence of fear as the determining motive. Such a one was the hoard of Vicarello unearthed as long ago as 1852, on the site of some hot springs which seem to have been noted for their healing qualities from very early times. The hoard consisted not only of the heavy early bronze coinage of Rome and Central Italy, but coins of the South Italian Greek cities as well. The interval covered by the pieces in the find was great; and the probability is very strong that we have in this case offerings made to the Divinity of the hot springs by those who had benefited there. Whether or not the accumulation was the result of a practice such as maintains today among travellers in Rome who drop their small coin into the waters of the Fountain of Trevi we cannot be sure, but this seems likely. The occurrence of the early crude bronze pieces of the Romans among the others has been

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accepted as *prima facie* evidence of their use as currency. Macdonald gives another instance of a similar nature — the find in Coventina's Well at Carrawburgh, a station on the line of Hadrian's wall.

SAIDA FIND

Saida is a small port on the Syrian coast of the Mediterranean and was the site of a find of which an entirely satisfactory explanation has never been offered. In the garden of a country estate, in 1820, a find was exhumed, which from report seems to have been of considerable size. Such was the fear of the authorities, however, that the hoard was secretly sold to jewelers and probably the greater part of it was melted. Twenty-three years later, in 1852, in the same garden, a second find was made within a few feet of the site of the first. There were three leaden vases, each containing about twelve hundred gold pieces. The local authorities put into prison those who were suspected of having had anything to do with

the discovery, but their high-handed procedure obtained for them only about eighteen hundred pieces, which were sent to Constantinople. The total number of pieces in the lot must have been over three thousand; they included staters and double staters of Alexander and staters of Philip II. In 1863, that is, eleven years later, a third discovery was made in this same garden within a short distance of the spot on which the other two were discovered. As with the second find, the money was enclosed in three vases of lead of the same size as the others but different in shape. Each contained about twelve hundred pieces. Two held staters of Alexander the Great only; the third, other staters as well. Had it been possible to secure these three hoards intact and to have had an accurate description of them, it is very probable that we could have arranged the gold coinage of Alexander the Great completely.

BLACKMOOR HOARD

This find consisted of close to thirty thousand coins which were enclosed in two earthen pots near Woolmer Common in Hampshire. Evidences of a battle in the neighborhood, together with its size, lend color to the conjecture that this may have been the military chest of Allectus, the successor of the "Emperor" of Britain, and that it was buried just previous to his last fight, 296 A.D. The hoard is interesting because of the number of pieces of the two emperors whose coins were the latest of those present. Of Allectus, there were ninety, comprising ten varieties, and of his predecessor, Carausius, 545 specimens, comprising 160 varieties. The reign of each was brief — presumably, most of their issues were present in the find.

ECONOMY HOARD

It may seem fitting to close with the account of an American hoard which offers some points of contrast with those already mentioned.

The town of Economy, Pa., is situated on the Ohio River not far from Pittsburgh. It was the home of a community known as the Harmonists, established by George Rapp about 1803 at Harmony, Butler County, Pa. After removing to Indiana and back again, one branch of it settled in Economy. Among its members were Bernhard Müller, and two of the sons of Robert Owen who had been connected with the Indiana community. Rapp died in 1847. Through prosperous business management the community had accumulated a sum which was estimated at nearly \$500,000 at the time of the Civil War. From the beginning they had manifested a distrust of banks and banking institutions, and a large part of this sum was in bullion, the remainder being in government bonds.

In 1863, during the Civil War, the raids of the Confederate General Morgan in Kentucky, Indiana, and Ohio caused the secreting of this accumulation in an underground vault; and it seems to have remained hidden until 1878, when the in-

vestment of a large sum in a railroad then being constructed brought it out of concealment.

The accumulation contained a large number of comparatively rare dollars and half-dollars amounting to \$75,000, according to information which there is very little reason to doubt. There were eight hundred dollars of 1795, thirty of 1798 with the small eagle, two 1796 half-dollars and one of 1797. In addition, there were French, Spanish, and American pieces to a value estimated at \$12,600. It will be recalled that these pieces circulated freely almost up to the time of the Civil War.

This hoard would have been an ideal one for numismatic treatment because it afforded evidence of the circulation within a definite period of the pieces included. Unfortunately, with the exception of the record of the rare mint issues, no information regarding the remainder seems to have been preserved.

In presenting this material, the effort has been to give a general idea, rather

than specific or scientific treatment, of this phase of numismatics. It is hoped that analyses of several finds to be published later will give a further demonstration of the value of hoards and treasure trove.

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NUMISMATIC NOTES
AND MONOGRAPHS

2



OCTOBOLS OF HISTIAEA

By EDWARD T. NEWELL

THE AMERICAN NUMISMATIC SOCIETY
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NEW YORK
1921

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11



Octobol of Histiæa
Cabinet of the Author
Unretouched Enlargement

THE OCTOBOLS OF HISTIAEA

BY

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THE OCTOBOLS OF HISTIAEA

By EDWARD T. NEWELL

A RATHER unexpected combination of circumstances has recently led the writer to investigate a well-known group of coins struck in the Eubœan city of Histiaëa. The results of this study strongly emphasize a necessary alteration in the dates which have been generally assigned to certain of these pieces, thereby throwing into considerable relief the causes leading to the introduction of the series in question.

In April of 1920, during an all too short sojourn in Athens, the writer experienced the unusual fortune of securing a very fine specimen of the well known octobol of Histiaëa. The *raison d'être* for the present article partly hinges on the fact that this new example chances to be in a far

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better state of preservation than the only other known specimen. The latter piece, until now unique, was originally owned by P. Lambros of Athens and was for the first time published by S. Komnos in the *Revue Numismatique*, 1865, pl. vii, No. 10. It was later republished by R. Weil in the *Zeitschrift für Numismatik*, vol. I, 1874, pp. 186-7. Eventually the coin passed to Photiades Pasha, and at the dispersal of his collection was bought for the Bibliothèque Nationale where it now reposes. This particular specimen, once more described by M. Babelon in his *Traité* 2, Vol. III, No. 201, pl. cxcviii, fig. 27, weighs 5.75 grammes and is therefore an octobol of the Attic system. Thanks to the kindness of M. Babelon this coin is herewith reproduced on Plate I, No. 2.

The new example (Plate I, No. 3) of the Histiaean octobol is in most respects identical with the Paris specimen, both having been struck apparently from the same pair of dies. The writer's coin, however, weighs 5.59 grammes and is, as stated above, somewhat better preserved.¹

The delight experienced at the unexpected acquisition of so rare a piece was but further increased by the opportunity now presented of deciphering an inscription engraved in minute letters on the cross-bar of the stylis held in the Nymph's hand. This inscription apparently commences with the three letters A Θ A, engraved on the left hand portion of the cross-bar. There are distinct traces of two more letters on the right hand portion, but these unfortunately are indecipherable. A careful inspection of the Paris specimen, on which the first three letters chance to be obliterated but the last two rather more distinct, would suggest—in view of the probabilities of the case—that these two remaining letters should perhaps be read N A. Thus by means of the new specimen M. Svoronos' insistence (*Jour. Int. d'Arch. et Num.*, 1914, vol. XVI, p. 91) that the cross-bar of the stylis on the coins of Histiaea once bore an inscription, is now fully corroborated. We will later have occasion to return to this inscription and its probable significance.

It so happened that but a few days previous to the fortunate discovery of the Histiaean octobol, the writer was engaged in studying a most interesting little hoard of Fourth Century coins, now preserved in the National Collection at Athens. This hoard contains tetradrachms of Philip II and Alexander the Great, a drachm of Larissa (400-344 B. C.), two hemidrachms of Locri Opuntii, a drachm of Boeotia, a drachm and five hemidrachms of Sicyon, and a tetrobol of Histiaea—a total of thirty five coins. The find was recently made in the course of some work being carried on near the mole or jetty at Kyparissia in the Peloponnese. The coins themselves are rather heavily coated with oxide, but their original condition appears to have been very good. The hoard presents at least two points of unusual interest. In the first place it antedates by some five or six years the earliest known deposit of Alexander coins—the famous gold hoards of Saida—whose probable date of interment was about the year 322-321 B. C. The second point of interest lies in the

fact that the tetrobol of Histiaea belongs to the seated Nymph type, a type that R. Weil (*Z. f. N.*, 1874, p. 183 ff) considers to have been first introduced in 312 B. C., and possibly as late as 290-289 B. C. In this he has been followed by Head in the British Museum Catalogue, *Central Greece*, where the coins in question are placed after 312 B. C. Both the *Historia Numorum* and M. Babelon in his *Traité des Monnaies grecques et romaines* endorse this assignment. Needless to say, the specimen in the Kyparissia Find belongs to what all these authorities recognize as the first group of the series, characterized by full weight and very fine style. Similar specimens are reproduced on Pl. xxiv, figs. 6 and 7 of the British Museum Catalogue, Pl. cxcviii, fig. 28 of the *Traité*, and Pl. I, No. 4 of the present article. Now the dating of our hoard rests entirely upon the Alexander tetradrachms, and for the following reasons. The tetradrachms of Philip II which it contained, were all struck previous to 336 B. C., as none of them belong to that large category known

to have been issued for many years after that monarch's death. The drachm of Larissa certainly precedes 344 B. C.; the hemidrachms of the Opuntian Locrians precede 338 B. C.; the Theban drachm is not later than 395 B. C.; the Sicyonian drachm and hemidrachms have been assigned by M. Babelon to the period between 400 and 300 B. C., and by Head previous to 323 B. C., but the Kyparissia specimens are of rather early style. The Alexander tetradrachms contained in this hoard are the issues of three mints only, Amphipolis, Tarsus, and Ake. The Amphipolitan varieties are types Nos. 1, 3, 4, 5, 6, 10, 13, 19 and 25 of the writer's *Reattribution of Certain Tetradrachms of Alexander the Great* in the American Journal of Numismatics for 1911. According to the writer's more recent studies, these types are among the earliest issues of that mint and should be dated not later than 328 or 327 B. C.

The varieties attributable to Tarsus correspond to Nos. 1, 3, 4 and 10 of the writer's *Tarsos under Alexander* in the Ameri-

can Journal of Numismatics, Vol. LII, 1918, where these particular varieties are assigned to the period comprised between 333 and 328 B. C. Finally, the sole representative of the Ake mint corresponds to No. 2 of the writer's *The Dated Alexander Coinage of Sidon and Ake*, where its date has been shown to be 332-330 B. C. Thus, we find a difference of some thirteen or fourteen years, at least, between the latest Alexander tetradrachms of the Kyparissia Hoard and the earliest date (313-312 B. C.) assigned by the leading authorities to the first appearance of the Histiaean tetrobols with the seated Nymph for their reverse type. The presence² in the hoard of a similar tetrobol is therefore sufficiently disturbing to call for an investigation of its hitherto accepted dating.

Even a superficial study of all the Histiaean tetrobols with the seated Nymph type soon reveals the fact that those of the finest style, as represented by No. 4 on Plate I, stand quite apart from the remainder of the series. Plate II, Nos. 1-5, give some typical examples of the later

issues. Except for their types, there is nothing in common between the two groups. No artistic or technical continuity is here apparent. Indeed, at first glance, one would suppose them to have been separated by an interval of at least fifty or more years, as in fact they are. It is quite possible that some of these later issues really do belong to the commencement of the third century, B. C., but one feels an instinctive reluctance towards placing those of the finest style (Pl. I, 4) along with them. Their artistic merit and the fine technique of their engraving is far superior to the usual numismatic productions of Greece towards the very end of the fourth century and later. The appearance at this time of the beautiful tetrobol and its accompanying octobol would be very extraordinary.

The question was finally settled in the writer's own mind, by the acquisition in Geneva of an almost uncirculated specimen of the first issue of Histiaëa, the Eubœic drachm with the reverse type of the cow and vine. This piece, formerly in

the collection of the late Dr. Pozzi of Paris, is here reproduced Plate I, No. 1. The series to which this coin belongs has been assigned by all scholars since Weil to the years 369-338 B. C. A comparison between the obverse of this drachm and that of the octobol (Plate I, No. 3) reveals at once a striking similarity, one should say identity, of style and execution. Every artistic criterion would cause one to suppose that their respective obverse dies had been cut by one and the same hand. The details of treatment to be seen in the eye, the mouth, the nose and profile, as well as the similarity of the planes throughout, certainly reveal the handiwork of a single die-cutter. Even if we should set aside this apparently self-evident fact as impossible of definite proof, the style of the two coins is yet far too close to allow us to believe that some twenty six years (to take the smallest limit allowed us by our authorities, that is, between 338 and 312 B. C.) could have elapsed between the striking of the two coins. If not actually contemporaneous,

they must have followed, the one upon the other, with but a very small intervening time. In other words, a consideration of style alone apparently forces us to assign the little group of Histiaean octobols and tetrobols, of fine style and with the seated Nymph reverse, to a period *preceding* the year 338 B. C., at which date the island of Eubœa finally fell into Philip's power and all local coinage ceased. Such an assignment, forcibly suggested by a close consideration of the coins themselves, is proved by the contents of the Kyparissia Hoard. The well nigh impossible proposition that this find, or for that matter any other find, could contain a coin supposedly struck more than fourteen years later than any one of its companion pieces in the hoard is thus avoided. The result is that our Eubœic drachms with the cow and vine reverse, as well as the attic octobols and the earliest group of the corresponding tetrobols with the seated Nymph reverse, must both be assigned to the period between 369 and 338 B. C. The problem now is, at just what time,

within the limits of this period, did the change in type and weight take place?

It chances that we have been given a fairly clear insight by Demosthenes, and other writers, of the events which occurred in Histiaë³ at the period when Philip and Athens were rapidly drifting into their final struggle. For some years the Macedonian king had held secure possession of the Thessalian mainland lying immediately opposite Histiaë. The inhabitants of Oreus, as Histiaë is usually called by the Attic writers, had long been divided into two bitterly opposed factions. Finally, a certain Philistides, an ardent philippiser, gained the ascendancy with Macedonian help, and Euphræus, the leader of the opposing or Athenian faction, was seized and cast into prison where he shortly afterwards committed suicide. To make his success assured, Philistides secured from the mainland a contingent of Macedonian soldiers and, with their aid, he was able to maintain his position as tyrant of Histiaë and the representative of Philip in this portion of Eubœa. But soon the

fiery eloquence of Demosthenes, his patriotic pleading, his denunciation of Philip's policy which very evidently threatened the power and even the existence of Athens, gained the ascendancy in the Assembly. At his instigation certain envoys, and later a military and naval force under Phokion, were sent to Eubœa. The operations against Histiaæ were crowned with complete success. Histiaæ was freed, Philistides was forced to flee (Steph. Byz. even states that he was killed), and the Macedonians expelled from the island. These events took place in the autumn and winter of 341-340 B. C. Histiaæ, together with the remainder of Eubœa, became an ally of Athens against Philip, and two years later their soldiers fought shoulder to shoulder on the disastrous field of Chæronea. With that decisive defeat Eubœa once more came under the dominion of Philip.

Such were the historical events, here so briefly detailed, that not only explain the sudden introduction of the Attic weight and new types into the Histiaean coinage,

but also clearly show that this probably took place early in 340 B. C. immediately following the expulsion of Philistides and his Macedonians. In other words, we must now assign the Histiaean octobols and their accompanying tetrobols to the period of 340-338 B. C. The extreme rarity of the larger denomination and the comparative scarcity of the tetrobol of finest style make it evident that their issue was not one of long duration. Their Attic weight would also seem to corroborate the new dating proposed here. Is it not natural to suppose that Histiaea should have adopted the weight standard of the now dominant power in Eubœa and her liberator from the Macedonian yoke? Especially is such a procedure likely in view of the fact that a combined campaign against the Macedonian power was now apparently imminent.

Finally, a study of the new type adopted by the Histiaians will, in the writer's opinion, but add a further proof, if such be needed, that the new coinage of Attic weight was inaugurated as a result and at

the time of the Athenian expedition to Histiaea. In the first place, it is evident that the type of a divinity seated upon a ship, or the portion of a ship, is indeed an innovation on the coinages of Greece proper. Later, a similar motive was chosen by Antigonus Doson when he placed upon his tetradrachms the representation of Apollo seated upon a ship's prow. Several coins struck by the Magnetes of Thessaly depict Artemis seated also upon a prow; while throughout the second and first centuries B. C., the Aradians placed the tyche of their city, seated sometimes upon an entire galley, sometimes only upon the prow, upon their bronze coins. Other Phœnician cities did the same, but in these cases the divinities are always standing. One thing is certain, namely that Histiaea, of all the cities of Greece, was the first, by many years, to adopt the type of a divinity seated upon a ship.

Only in one other instance, in Cyprus, do we find a similar motive employed during the fourth century B. C. The coin

here referred to is the handsome stater of an as yet unidentified ruler, perhaps Aristochus of Curium, which gives a very beautiful representation of Athene, holding an aplatere, and seated upon a ship's prow. In view of the close association proposed above between the Athenian expedition and the adoption by the Histiaeans of a similar motive, it is most interesting to note that R. Kékulé has called attention to the artistic connection⁴ between the Cypriote stater and a portion of the balustrade of the temple of Athena-Nike at Athens. M. Babelon goes further and makes the interesting suggestion⁵ that, because of the evident Athenian origin of its type, this stater may have been struck by the Athenian Aristophanes, son of Nikophemus, who had been active during the wars in Cyprus against the Persians. Now Athene on this coin holds an aplatere in her hand and gazes at it attentively. This fact and the close association of the motive with the design on the Nike temple at Athens strongly suggests that the stater itself commemorates some naval

victory. Such an interpretation is entirely supported by the type of Apollo seated on a prow as chosen at a later period by Antigonus Doson. Imhoof-Blumer has clearly shown that Antigonus adopted this type in direct reference to his important naval victory gained over the Egyptians off the island of Cos and near the Hieron of Apollo Triopios on the mainland.

It would seem entirely plausible to suppose that Histiaea adopted the Nymph and stern type for some similar reason, perhaps a successful naval skirmish—however small this may have been—incidental to the expulsion of Philistides. To be sure, our brief historical sources make no mention of any naval engagement in the operations which resulted in the liberation of Histiaea. Nevertheless, the mere approach of the powerful Athenian fleet, threatening to cut the communications of Philistides and his partisans with the only true source of their power—the Macedonian army and its base in Thessaly—would have all the effects of a victorious naval battle. It was certainly the naval

supremacy that Athens at this time enjoyed which enabled her to stem the rising tide of Macedonian influence on the island of Eubœa. In view of the Athenian sea-power it would be surprising if the liberation of Histiaëa had been accomplished by land operations alone, particularly as these successful operations appear to have been of such short duration.

At first glance we may not seem entirely warranted in thus tracing an important coin type to an admittedly conjectural event. On the other hand, certain definite indications would seem to corroborate our theory. In the first place, we had occasion to note above that one similar type certainly, and another probably, refers directly to a naval victory. Secondly, Histiaëa was the first to introduce this motive on the coinage of Greece proper. Because of its novelty there must have been some explicit reason for the type chosen; while the presence of the ship's stern indicates plainly that something connected with the sea must have played an important part in the choice. Finally,

the employment of the stern, instead of the prow, would seem to give us a definite clue to the reason for the adoption of the type. It was evidently adopted for the express purpose of displaying the stylis,⁶ at which the Nymph Histiaëa gazes with such manifest surprise and delight. This makes the stylis unquestionably the central point of interest around which revolves the entire design. The Nymph herself, by her very attitude, directs the onlooker's eye to the stylis upon which we have found engraved the word A Θ A (N A). This, then, must represent the key to the entire problem.

Now M. Svoronos in his most interesting and important article on the origin, meaning, and use of the stylis has clearly demonstrated that it was originally the palladium, the tutelary divinity of the vessel itself. For this reason it was placed upon the most vital portion of the ship, the stern, where was to be found, to use his own words, "le gouvernail et le timonier, la force et l'âme du navire, dont dépend tout mouvement et le sort même de la navigation." Furthermore, the name

of the god was often inscribed upon the stylis, as it was not always easy to recognize by the shape of the stylis alone, the god it was intended to represent. In proof of this M. Svoronos calls attention to a Greek vase of the fourth century B. C., found near Santa Maria di Capua, upon which is represented a ship's stern and the stylis. Upon the cross-bar of the stylis is engraved ZEYΞ ΞΩTHP. M. Svoronos further says: " Dans les armées de terre, où rarement était possible de présenter subitement, d'un point visible à tous, des *idoles* ou symboles, on donnait les différents ordres, surtout le *mot d'ordre* de la bataille, par des mots, qui devaient rester secrets. Ces mots, appelés aussi *συνθήματα*, n'étaient autre que *les noms des dieux dont on invoquait la présence et la protection* à cette heure critique. Sur une de nos *stylides-idoles* nous avons vu le nom de Ζεὺς Σωτήρ. Or ces deux mots sont ceux que nous trouvons le plus souvent comme des *mots d'ordre* des armées sur terre." He goes on to give numerous Greek watch-words and battlecries that have come

down to us, among which should be noticed particularly: 'Αθηνα Παλλάς, and 'Αθηναία. Now, it is evident from the arguments and proofs brought together by M. Svoronos that the stylis was to be to the single ship or the entire squadron what the standard was to an army. It was, namely, the oriflamme, the palladium, the symbol of the divinity, presiding over the destinies of its protégés and leading them to certain victory. Moreover, the name of the protecting deity was sometimes inscribed upon a tablet attached to the shaft of the stylis. Thus, we conclude that the word ΑΘΑ(ΝΑ), inscribed upon the cross-bar of our stylis, unmistakably indicates under whose mighty guidance the events took place, events of such importance to Histiaëa that led to the adoption of a new weight standard and a new design for her coinage. But certainly no event in the fourth century history of that city would better accord with these new types than her liberation, by the help of Athens, from the tyranny of Philistides and his Macedonian soldiery. Was not Athene the tute-

lary goddess of the great city which had sent her best general, Phokion, to lead her own forces and those of the Athenian sympathizers recently driven from Histiaea? Furthermore, was there not a persistent tradition, a tradition no doubt invoked by all Athenians and their Histiaean friends, that the Eubœan city had once been founded by emigrants from the Attic deme of Histiaea (Strabo X)? Soon after the expulsion of the Persians from Greece, Histiaea became subject to Athens, and in 445 B. C. Pericles settled some two thousand Kleruchoi in the city. Thucydides also states that when Eubœa revolted in 411 B. C., the only city in all the island that remained faithful to Athens was Histiaea. Thus, there had evidently been for a long time a strong tradition of attachment to Athens, and we may be sure that under the Macedonian tyranny the decisive intervention of Athene, to save what was but her own, was eagerly prayed for. Little wonder then, that when this was finally accomplished, the graceful figure of Histiaea's eponymous Nymph, seated upon

the ship's stern, reads with such rapt attention and manifest delight the inspiring battle cry of Athene the Saviour. For we may surmise that the full expression may well have been 'Αθανᾶ Σωτήρα, but the necessarily small size of our stylis allowed the engraver to give but the first word.

The present is an excellent opportunity to publish, evidently for the first time, what appears to be an obol, Plate I, 5, belonging to the same series. Hitherto, at least so far as the writer has been able to discover, only octobols and tetrobols of the fine style group of coins bearing the seated Nymph type have been known. Neither Head in the British Museum Catalogue and the *Historia Numorum* (both first and second editions), nor M. Babelon in his *Traité* 2, vol. III, assign any other denomination in silver than the two already mentioned, to this particular group. Two specimens of the obol came into the writer's possession some years ago. The coin bears on its obverse a fine head of the Nymph, identical in style and details with that on the octobols (Plate I,

2 and 3) and the tetrobol (Plate I, 4). Its reverse presents the same type of the Nymph Histiaëa seated to right upon a ship's stern. Here, too, she gazes intently at the stylis before her, while the attitude of her left hand apparently expresses the same feelings of pleasure and surprise that M. Svoronos⁷ first noticed on the tetrobol. The better preserved of the two specimens in the author's collection weighs grammes 0.77, the other grammes 0.75, showing that they are obols of the Attic system. The close association of these obols with the tetrobol, Plate I, 4, is proved both by their absolute identity of style and by the presence, behind the Nymph, of the same magistrate's symbol, a Bunch of Grapes. Needless to say these new coins are far too small to bear any inscription on the cross-bar of the stylis.

The foregoing study apparently leads us to assign to the years 340-338 B. C. the compact little group of Attic octobols, tetrobols, and obols characterized by their uniformly fine style and their reverse type of the eponymous Nymph of Histiaëa

seated on a galley's stern. In this series we must recognize something in the nature of a commemorative issue, struck in the first flush of the city's triumphant liberation, with Athenian aid, from Macedonian overlordship. In view of the unexpected unanimity of the numismatic, archaeological, and historical evidence it has been possible to present, is it too presumptuous to believe that the new dating here proposed must eventually be accepted?

NOTES

¹ The somewhat lighter weight of the new octobol, as compared with that of the Paris specimen, is no doubt due to two slight abrasions it has suffered, the one on the obverse just over the Nymph's ear, the other on the reverse which has obliterated the Nymph's right breast.

² There can be no possible doubt that this coin was in the find. The peculiar oxidation with which it is covered is shared by all its companion pieces and is due, no doubt, to the action of sea water on them. Furthermore, it is definitely entered on the books of the Museum as having been received along with the rest, a statement there is no reason to question.

³ See E. Curtius, *Griechische Geschichte*, III, 677, and Grote, *History of Greece*, XI, 621 ff.

⁴ *Die Reliefs an der Balustrade der Athena-Nike* (1881), pp. 1 and 5.

⁵ This suggestion is supported by Mr. Hill in the British Museum Catalogue *Cyprus* introd. p. xliii. and xliv.

⁶ M. Svoronos, *Jour. Int. d'Arch. et Num.* vol. XVI, 1914, p. 81 ff., shows that the stylis was nearly always at the stern instead of the prow of the ship.

⁷ *Jour. Int. d'Arch. et Num.*, Vol. XVI, 1914, p. 91.

HISTIAEA

PLATE I



I



2



3



5



3



4

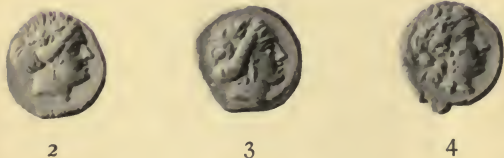




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HISTIAEA

PLATE II



NUMISMATIC NOTES AND MONOGRAPHS

3



ALEXANDER HOARDS

INTRODUCTION AND
KYPARISSIA HOARD

By EDWARD T. NEWELL

THE AMERICAN NUMISMATIC SOCIETY
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ALEXANDER HOARDS

I

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INTRODUCTION AND
KYPARISSIA HOARD



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ALEXANDER HOARDS

BY EDWARD T. NEWELL

INTRODUCTION

No doubt one of the greatest desiderata to students of Greek numismatics is a complete reworking of the entire coinage bearing the types of Alexander the Great, with a view to determining dates, mints, and issues of this extraordinarily large and interesting series of ancient coins. It is evident that the surest basis for such a study will undoubtedly be found in a careful analysis of hoards containing this type of coin. It is the writer's firm conviction that eventually these hoards, when studied as a whole, will be made to do for the Alexander Series what the painstaking study of hoards of Roman coins has accomplished towards the rapidly increasing knowledge of the so-called Roman Consular denarii. This

excuse will serve also for the writer's intention to republish certain hoards which have already been dealt with by previous writers, but which, nevertheless, still possess considerably more information than they have as yet been made to impart.

A series of articles, inaugurated by the present one, is intended, therefore, not only as an introduction to the study of Alexandrine coinage, but also to place on record such statistics and notes relating to finds of Alexander coins as the writer has been able to gather from time to time in the course of his studies.

In view of the fact that a great deal of our knowledge concerning the coinages of Alexander and his successors will have to rest, in the final analysis, upon the evidences as established by coin hoards, it is peculiarly unfortunate that the latter have so seldom been studied or even recorded with any care. The number of published hoards is indeed small. The majority of such finds, as chance to have contained Alexander coins, have usually been immediately dispersed and so lost

INTRODUCTION

3

beyond the hope of recovery, while dealers have been at pains to rid themselves, as soon as possible, of what to them was almost in the nature of a drug on the market. A notable and honorable exception has been the activity displayed by the Greek Government and, above all, by M. Jean N. Svoronos, director of the Hellenic National Collection, in securing and preserving as intact as possible all hoards unearthed in Greek territory. In this way several important finds have been saved from the general loss. On the whole, though, the greater number of Alexander hoards have been unearthed east of the Ægean, and the conditions obtaining there have not been favorable to their preservation for scientific purposes. Therefore, every little we may have is of value, and this is the reason for the attention bestowed, in the following articles, on some mutilated record, or on what is now the mere skeleton of a once important find.

AND MONOGRAPHS

THE KYPARISSIA HOARD

THE first hoard which has been chosen for publication and study is a small find of thirty-five coins now preserved in the National Collection in Athens. The distinguished director of that fine collection, M. Jean N. Svoronos, has recently and very kindly given the writer permission to publish this interesting hoard, and the opportunity is here taken of thanking him sincerely for his generosity in thus placing these coins at our disposal. The chief reason for the selection of the Kyparissia Hoard as worthy of heading the list of finds which throw some light on the Alexander question, lies in the fact that it is the oldest in point of burial of all the Alexander hoards known to us. It should therefore definitely fix what were some of the earliest issues of Alexander the Great. It, also, incidentally corroborates the datings previously assigned by the writer to these particular issues.

Only a few of the coins contained in the find have been reproduced, both because

their types are for the most part common, and especially because the coins themselves have suffered considerably from oxidation and so lend themselves but indifferently to reproduction. Those which have been selected were cleaned since their discovery, but it will be seen that, even so, their condition leaves much to be desired. The autonomous issues have not been cleaned and are, therefore, too poor to reproduce. In order that the student may clearly appreciate what particular types of the Greek autonomous coinages were included in the hoard, reference in their description will be made to the plates of M. Babelon's *Traité des Monnaies grecques et romaines*.

In the following detailed description each coin has been given a number for convenience of reference in the discussion. The second number (in parenthesis and following the first) is the serial number given to the coin in the official records of the National Numismatic Museum, Athens. In describing the Philip and Alexander coins reference is made, where possible, to Ludwig Müller's *Numismatique*

d'Alexandre le Grand and *Numismatique de Philip II*, Copenhagen, 1855. The Danish scholar's assignment of these coins to various mints has been completely disregarded, as the greater number of his attributions are worthless, having been based on a theory of mint marks long ago shown to have been erroneous. Instead, attributions to certain mints are made which the writer, because of his long study of this subject, feels are entirely justified. Some of these have already been discussed by him in his previous writings, and in such cases reference to them will be added. In cases where his attributions have not as yet been published, the reader's indulgence is asked until the appearance of a work now in preparation. The scope of the present article is not such as to lend itself to necessary lengthy discussions on various mints and their issues, nor is the material here presented of sufficient quantity to make such discussions either clear or of value.

The Kyparissia Hoard contained the following coins :

K Y P A R I S S I A

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LARISSA IN THESSALY, 400-344 B.C.

1 (1060) DRACHM.

Obv. Head of Nymph facing.

Rev. Horse feeding.

Type of British Museum Cat., *Thessaly*, Pl. vi, No. 1.

LOCRI OPUNTII, 387-338 B.C.

2 (1061) TRIOBOL.

Obv. Head of Persephone to r.

Rev. ΟΠΟΝΤΙΩΝ. Ajax to r.

Type of Babelon, *Traité*, Pl. ccvii, fig. 4.

3 (1062) Similar.

THEBES IN BŒOTIA, 426-395 B.C.

4 (1063) HEMIDRACHM.

Obv. Bœotian shield.

Rev. Kantharos in incuse square.

Type of Babelon, *Traité*, Pl. cc, figs. 23, 24.

SICYON, circa 400-300 B.C.

5 (1064) DRACHM.

Obv. Dove to l. and ΣΙ.

Rev. Dove to l. in wreath. Ε.

Type of Babelon, *Traité*, Pl. ccxxi, fig. 24.

6 (1065) TRIOBOL.

Obv. Chimæra to l. and ΣΙ.

Rev. Dove to l.

Type of Babelon, *Traité*, Pl. ccxxi, fig. 29.

A N D M O N O G R A P H S

- 7 (1066) Similar.
 8 (1067) "
 9 (1068) "
 10 (1069) "

HISTIAEA IN EUBŒA, 340-338 B.C.

- 11 (1070) TETROBOL.

Obv. Head of Nymph to r.

Rev. ΙΣΤΙΑΙΕΩΝ. The nymph Histiaea seated to r. on ship's stern.

Type of Babelon, *Traité*, Pl. cxcviii, fig. 28.

PHILIP II OF MACEDON, 359-336 B.C.

MINT OF AMPHIPOLIS.

- 12 (1039) TETRADRACHM.

Obv. Laureate head of Zeus to r.

Rev. ΦΙΛΙΠΠΟΥ. The king in kausia and mantle, right hand raised, riding to l. on horseback. Beneath horse, M.

Type of Müller, No. 292.

- 13 (1038) TETRADRACHM.

Obv. Similar.

Rev. ΦΙΛΙΠΠΟΥ. Youthful rider, holding palm branch, to r. on horseback. Beneath horse, an OMPHALOS.

Variety not in Müller.

14 (1037) TETRADRACHM.*Obv.* Similar.*Rev.* Similar. Beneath horse, DOUBLE HEAD and BEE.

Variety not in Müller.

15 (1036) TETRADRACHM.*Obv.* Similar.*Rev.* Similar. Beneath horse, DOUBLE HEAD.

Type of Müller, No. 269.

ALEXANDER III OF MACEDON,

336-323 B.C.

MINT OF AMPHIPOLIS.


16 (1051) TETRADRACHM.*Obv.* Head of young Heracles.*Rev.* ΑΛΕΞΑΝΔΡΟΥ. Zeus ætophor seated to l. on throne. In front, DOUBLE HEAD.

Type of Müller, style I, No. 853.

17 (1052) Similar.**18 (1053) “****19 (1042) TETRADRACHM.***Obv.* Similar.*Rev.* Similar. In front, PROW.

Type of Müller, style I, No. 503.

20 (1043) Similar.

- 21 (1044) Similar.
 22 (1045) "
 23 (1049) TETRADRACHM.
Obv. Similar.
Rev. Similar. In front, STERN.
 Type of Müller, style I, No. 758.
 24 (1050) Similar.
 25 (1054) TETRADRACHM.
Obv. Similar.
Rev. Similar. In front, RUDDER.
 Variety not in Müller.
 26 (1046) TETRADRACHM.
Obv. Similar.
Rev. Similar. In front, AMPHORA.
 Type of Müller, style I, No. 527.
 27 (1041) TETRADRACHM.
Obv. Similar.
Rev. Similar. In front, IVY LEAF.
 Type of Müller, style I, No. 244.
 28 (1048) TETRADRACHM.
Obv. Similar.
Rev. Similar. In front, QUIVER.
 Type of Müller, style I, No. 591.
 29 (1040) TETRADRACHM.
Obv. Similar.
Rev. Similar. In front, CLUB and 
 Type of Müller, style I, No. 138.

K Y P A R I S S I A

II

30 (1047) TETRADRACHM.

Obv. Similar.

Rev. Similar. In front, DOLPHIN.

Type of Müller, style I, No. 539.

MINT OF TARSUS.

31 (1059) TETRADRACHM.

Obv. Similar, but of "Cilician" fabric.

Rev. Similar, but of "Cilician" fabric.

Without symbol or letter.

Variety not in Müller. Newell, *Tarsos under Alexander*. Am. Jour. Num., Vol. LII, Pl. i, Nos. 16-19.

32 (1055) TETRADRACHM.

Obv. Similar.

Rev. Similar. Beneath throne, A.

Type of Müller, style II, No. 1291. Newell, *loc. cit.*, Pl. ii, Nos. 1-5.

33 (1056) TETRADRACHM.

Obv. Similar.

Rev. Similar. Beneath throne, B.

Type of Müller, style II, No. 1289. Newell, *loc. cit.*, Pl. ii, Nos. 6-15.

34 (1057) TETRADRACHM.

Obv. Similar.

Rev. Similar. Beneath throne, B.

Variety not in Müller. Newell, *loc. cit.*, Pl. iii, Nos. 9-13.

AND MONOGRAPHS

MINT OF AKE.

35 (1058) TETRADRACHM.

Obv. Similar.

Rev. Similar. Beneath throne M.

Variety not in Müller. Newell, *The Dated Alexander Coinage of Sidon and Ake*, Pl. v, Nos. 12, 13.

This little hoard of fourth-century coins, known in the records of the National Collection at Athens as the "Kyparissia Find," was brought to light some years ago¹ during the construction of a mole or jetty in the harbor of Kyparissia in the western Peloponnesus. When found, a thick coating of brownish-gray oxide covered all the coins. An attempt, not oversuccessful, has since been made to clean a few of the pieces. The original condition of the coins at the time of the burial was apparently very good, but their long interment, aided perhaps by the deleterious action of sea water, has damaged them to a considerable extent.

The approximate date at which our hoard was buried may be determined with

NUMISMATIC NOTES

a fair amount of accuracy. Let us first take up the autonomous issues. Of these the Histiaean tetrobol (No. 11) is the only one whose date of issue has as yet been closely determined. Although previous writers have agreed in assigning it to a period after 313-312 B.C., the present writer has recently shown² that this late dating is certainly erroneous with regard to the tetrobols of finest style and their accompanying octobols and obols. This particular group, characterized by its peculiarly fine style, must have been struck immediately after the Athenian liberation of the city from Macedonian supremacy in 340 B.C. The series probably came to an end in 338 B.C., when the battle of Chæronea put a stop, for the time being, to all aspirations for liberty in central Greece. The island of Eubœa almost immediately afterwards came once more under Macedonian domination. It is therefore only the tetrobols of late style and debased weight — far more numerous than the small issue represented by No. 11 — that can be assigned to the period after 312 B.C.

To the other autonomous issues represented in our hoard, somewhat lengthy periods of issue have been assigned. It is significant, however, that, with the possible exception of the Sicyonian drachm (No. 5) and triobols (Nos. 6-10), they all come to an end by 338 B.C. As regards these triobols M. Babelon has assigned to them the wide margin of time extending from 400 to 300 B.C. To the writer, Head's dating, which runs only to 322 B.C., would seem to be the more acceptable, especially as about 330 B.C. — and certainly by 325 B.C. — a large issue of staters and tetradrachms bearing Alexander's types was instituted at Sicyon. This issue may have entirely done away with the striking of autonomous coins here, at least it must have considerably curtailed their output. For us, however, this is somewhat beside the point because the comparatively fine style exhibited by Nos. 5 to 10 show that they must have been struck before the commencement of the last quarter of the fourth century B.C.

The four examples of the tetradrachm

issues of Philip II contained in the Kyparissia Find all belong to the lifetime of that king. None of them belong to the large series of posthumous issues which made their appearance, at first sporadically and in small numbers, later — about 320-318 B.C. — in extraordinarily large quantities. The four specimens are therefore to be dated before 336 B.C.

The presence in the find of tetradrachms of Alexander the Great show, it is needless to say, that our hoard must have been buried after his accession to the Macedonian throne. Furthermore, it is his coins which will have to furnish us with any information as to their date of burial, because none of the autonomous issues — always with the possible exception of the Sicyonian triobols — come down later than 338 B.C. The Alexander tetradrachms, Nos. 16-25, are representatives of the first issue under Alexander at Amphipolis, just as No. 15 is a representative of the last issue under Philip at the same mint. These issues probably covered the years 336 to 334 B.C. The second issue, covering the years 333 and

332 B.C., is represented by Nos. 26 and 27. The third issue, covering the year 331 B.C., is represented by No. 28, while Nos. 29 and 30 represent the fourth issue for the years 330 and 329 B.C. These earlier issues of Amphipolis were somewhat inadequately treated by the present writer in his first monograph on the subject of Alexander's coinages (Reattribution of Certain Tetradrachms of Alexander the Great, *Am. Jour. of Num.*, Vol. XLV, 1911). Since that time a great deal of new material has come to light which will necessitate certain changes being made in some of the details of that article. Nevertheless, the general scheme appears to hold, and, in particular, the earlier issues of the great Macedonian mint seem to have been correctly assembled. Unfortunately, the writer made the mistake of too implicitly following his predecessors in the accepted interpretation of the dates found on the Alexander coins of Ake. This reacted on the dates given to the contemporaneous Macedonian issues, which were thus made to cover too long a period. At that time

also, the writer was uncertain whether these particular Macedonian coins were struck in Pella or Amphipolis, and was rather inclined to decide in favor of the former mint. Since then his continued studies have revealed the fact that the coins represented by Müller's Class I and the writer's types 1-51a in the above-mentioned work, must be assigned to Amphipolis.

The issues of the Cilician mint of Tarsus have been recently worked out in detail by the writer.³ By this we see that the Tarsian specimens, Nos. 31-34 in the Kyparissia Find, all belong to the first issue of the mint in the Cilician metropolis. This issue covered the years 333 to 328 inclusive, and their presence in our hoard corroborates the dates assigned to their companion pieces of Amphipolis.

The remaining Alexander tetradrachm, No. 35, is of the Ake mint. The type was shown by the writer in his "The Dated Alexander Coinage of Sidon and Ake" to have been struck between 332 and 330 B.C.

The presence in the Kyparissia Hoard of

these particular varieties of the Alexander type makes them reciprocally substantiate the dates assigned to them individually. Furthermore, none of these coins fall later, apparently, than 328 B.C. None of the Philip tetradrachms are later than 336 B.C., nor are the autonomous coins — always with the possible exception of the Sicyonian triobols — later than 338 B.C., which fact, in turn, sustains the early dating assigned to the Alexander tetradrachms. With regard to the triobols of Sicyon in the find, we have indicated that there is reason to believe that they too do not conflict with the other indications of an early date for the hoard's burial. Therefore, if we are to allow a little time for the latest of the Alexander pieces to reach the western Peloponnesus, the original owner of this hoard could not possibly have buried it previous to 327 B.C. On the other hand, the coins could not have been buried very much after this date, as is probable from the fact that the immediately succeeding issues of Amphipolis and Tarsus were very large indeed, and so

examples would soon have found their way into the hoarder's savings, as he seems to have drawn so largely on the issues of these two mints. It is also significant that none of the large Alexander issues of Sicyon, which commenced to appear at just about this time, are represented in the find.

A glance at the hoard as a whole does not tell us much concerning its former owner or the circumstances which led to its burial. It is curious that it contained no Athenian, Corinthian, or Elian coins. One would think that the comparatively common issues of the last named place, at least, would be represented in a hoard buried not far away. This perhaps suggests that the former owner may have been a Macedonian soldier stationed in the Peloponnesus after the unsuccessful attempt, in 330 B.C., of the Spartan king Agis to overthrow the Macedonian supremacy. As a follower of the regent Antipater his pay, conceivably, would have been largely in Alexander tetradrachms, especially those of the principal Macedonian mint Amphipolis. The Phoenician and some of the Cilician

tetradrachms might have constituted a portion of the large amounts of silver which Arrian (III, 16, 17) says Alexander caused to be forwarded from Syria to Antipater for the express purpose of carrying on the war against the Lacedæmonians. The lesser denominations, then, especially the triobols of Sicyon, would represent the small change the soldier had received on the local market when he made purchases with his tetradrachms. What the Larissan, Theban, and Histiaean pieces are doing so far from home is not easy to conjecture unless, indeed, they were odd pieces brought along from his previous station in Thebes, Thessaly, or Eubœa — where we know the Macedonian Government kept strong garrisons. Mere fanciful conjecture all this may be, but to the writer it seems to cover the facts in the case. Conjecture, however, it will always remain. The real interest of the Kyparissia Find lies entirely in the light it throws on the circulation and dates of the Alexander tetradrachms which form its largest portion.

K Y P A R I S S I A	21
<p>NOTES</p> <p>¹ This find was entered on the accession book for 1892-1893 of the Athenian National Collection. It is there given the accession number KZ for that year.</p> <p>² The Octobols of Histiaea, Numismatic Notes and Monographs, Am. Num. Soc. 1921.</p> <p>³ Tarsos under Alexander, <i>Am. Jour. of Num.</i> Vol. LII, 1918.</p>	
A N D M O N O G R A P H S	



KYPARISSIA

PLATE I



12



16



19



KYPARISSIA

PLATE II



25



26



30





NUMISMATIC NOTES
AND MONOGRAPHS

No. 4



THE MEXICAN REVOLUTIONARY
COINAGE 1913-1916

By HOWLAND WOOD

THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
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74



The Oaxaca Gold
Sixty-Peso Piece

74

THE MEXICAN REVOLU- TIONARY COINAGE

1913-1916

BY
HOWLAND WOOD



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MEXICO

I

THE MEXICAN REVOLUTIONARY COINAGE

1913-1916

BY HOWLAND WOOD

INTRODUCTION

WAR in its various phases has always had its influence on coinage; mints have changed hands or new mints have operated, new types or denominations have resulted, while special coinages, either necessity or emergency, have come out during such periods of unusual disturbance or stress. The bygone coinage of Europe well attests this fact. The money of North and South America has been equally influenced by war and other political disturbances.

Ever since the recent revolutionary era began in Mexico, and there were prospects that coins might be issued, it

NUMISMATIC NOTES

has been the endeavor of The American Numismatic Society to obtain specimens of such coins and the data concerning them. The necessity of collecting all possible information and specimens at the time, while events were fresh and the coins could be acquired, was especially borne in mind. This decision was made chiefly because of the woeful lack of knowledge concerning that previous series of crudely struck coins and counterstamped pieces, issued in Mexico by both the Patriots and Royalists during the War of Independence between 1810 and 1822. Then, unfortunately, and for a long time afterwards, little attention was paid to those early pieces, and not much pertinent and interesting information concerning them remains to-day; or if it does, it has not been resurrected for the numismatic fraternity. Although we have much knowledge and data concerning the extensive coinage of Morelos, the Commander of the Army of the South, there is much more we do not know. We have the coinage of General Vargas, struck at Sombrerete in Zacatecas,

but numismatists know little about this man or his coinage. Also there are the various issues struck by the Royalists and the Central Junta, and the many counter-stamped pieces, the product of the time, of which for the most part we are ignorant as to details. This is especially unfortunate as these pieces would, with more information, be as interesting as any similar series issued in Europe.

Without attempting to trace the history of the present revolution or, rather, series of revolutions, we can see that the unrest in Mexico, which had been quietly slumbering for a number of years, had its beginning about 1910 when General Porfirio Diaz was elected president for the eighth time. Although the old gentleman was alive to the mutterings of discontent, he was overpersuaded by his advisers to continue his presidency. In November of that year the revolution started under the leadership of Señor Francisco Madero. Diaz had to leave Mexico in May, 1911, and, after a short period of provisional government, Madero became president.

His rule was short-lived and lasted from November 6, 1911, until February 13, 1913, when a *coup d'état* took place and his murder resulted a few days later. During the next month rebellions again broke out in the North under the command of Generals Carranza and Villa, although some time before there had been in the South, where Zapata and his followers were strong, a very decided opposition to any of the existing governments.

During these first two years, events moved quickly, which resulted in many changes as to politics, but as far as coin issues were concerned we find nothing. With the rapid rise of the Constitutionalist forces of the North and the organization of their territory, we begin to get our revolutionary coinage. This was due probably to the urgent need of a more stable currency and the fact that the civil war had already devastated the land, and what money there was formerly had been either buried or exported. The first currency to be issued consisted of enormous quantities of paper money which

were extensively counterfeited and soon became practically valueless. In fact, it looked for a time as though numismatists would be poorly repaid for their trouble in trying to find any coins. As paper money cost practically nothing to issue, and for the most part was put into circulation by force, the necessity of coining money was reduced to a minimum. As a matter of fact when any silver or copper was actually coined, the bullion for it was either stolen or taken over by threats or by force, and the cost of production was consequently very small. Even when silver money was issued, it disappeared from circulation almost instantly, as the flood of paper money made it profitable to melt up the new coin or else export it. Large amounts of coin are, nevertheless, in the country from the fact that much has been forced out of hiding by threats, torture, and other high-handed methods. Also it is a well-known fact that vast sums have been smuggled across the border into the United States. It has been reported that Villa has sent into the United

States several million pesos that he coined in Chihuahua. See No. 22, page 20.

The first of these revolutionary issues, especially in the North, were struck with the intention of giving full weight and value. In the South, the coins were stamped with values much in excess of their bullion worth, but later were followed in some instances by a pure token coinage in copper with denominations of silver coins. The alloying of gold in the silver coins is interesting. When done intentionally the amount of gold was stated on the coin, as in the case of the Zapata and Oaxaca issues.

The scope of this monograph is the metallic coinage of the period in question issued by the different revolutionary bands and it makes no pretensions of chronicling the coins issued in Mexico City that followed the regular standards; nor is any attempt made to take up the many and various issues of paper and cardboard money that flooded the country.

Although it has been the aim to chronicle all the varieties struck, the impossibility of

doing so is realized. Undoubtedly some pieces have escaped notice. The writer has heard rumors of other pieces but has been unable to get sufficient data about the issuers or descriptions of the pieces. There have been reports of square gold pieces circulating in certain of the mountain districts; more definite reports come regarding crude pieces of silver bullion passing current along the Chihuahua and Sonora borders in the mining districts of the Sierra Madre. These are not coins and consequently are not included in the catalogue; they are simply pieces of silver weighing one or two ounces, and passing for one and two pesos, respectively.

One would naturally expect to find counterstamps as a result of the many changes, but to my knowledge there has been but one counterstamp and that on one of the revolutionary pieces. The probable reason for this absence of surcharging was the scarcity of coins to re-validate, and the fact of no great amount of enemy issues getting into the possession of the other side.

The opportunity is herewith taken to acknowledge my thanks to the following collectors for information and the loan of certain coins :

Sig. Ignacio Fernandez Esperon of the Mexican Consulate, New York, for much valuable information concerning events in Mexico.

Dr. Francis C. Nicholas for much useful information, and the gift to the Society of a number of these revolutionary coins.

Rev. A. D. Chaurand for the history of the Oaxaca issues.

Mr. George F. Brown for the loan of coin No. 25.

Mr. H. L. Hill for No. 41.

Mr. John F. Le Blanc for Nos. 10, 27, 28, and 46.

Dr. T. W. Voetter for No. 26.

Mr. E. E. Wright for Nos. 12, 13, 14, 16, 21, 44, and 47.

Mr. Farran Zerbe for Nos. 2, 42, and 43.

All the other coins described are in the collection of The American Numismatic Society.

1913 - 1916	9
<p>The first actual issue of coins made by the revolutionists was in the State of Sinaloa in June and July, 1913, from bullion taken from the El Rosario Mine, on the order of General Rafael Buelna.</p> <p>1. Peso. The regular Mexican eight reals or peso. With eagle on obverse and radiate liberty cap on reverse, as adopted in 1825 and issued almost constantly until 1910.</p> <p>Size 39 mm. Weight of specimen examined, 32.72 gr. (505 grains). Silver.</p> <p>It is said that only 25,000 were cast, so poor were the results, as the casting was executed in coarse sand moulds. These pieces are very rare and probably very few specimens will find their way into the cabinets of collectors. It is said that they were all melted up in the space of a few days because it was found that a large percentage of gold was in the alloy, which had not been assayed before the pieces were made. Exaggerated tales are told of the amount of gold in these pieces, but these stories must be viewed, for the most part, with considerable scepticism.</p>	<p>Sinaloa Issues</p>
<p>AND MONOGRAPHS</p>	

The fact remains, however, that the gold in these pieces is far in excess of their face value. It will be noted that they weigh about a fifth more than the standard Mexican peso.

2 Peso. Same as No. 1, but counter-stamped G.C.

Size 39 mm. Weight 32.2 gr. (497 grains). Silver. Plate I.

This counterstamp is said to be the mark of General Juan Carrasco, and is interesting because Carrasco shortly after issued dollars of his own, and probably at the same time stamped the few remaining Buelna dollars that had escaped the melting pot. This G. C. stamp has been interpreted by some as the abbreviation of General Carrasco, but the more probable reading is Gobierno Constitucionalista (Constitutional Government).

Some time in the late autumn of 1913, General Juan Carrasco caused dollars to be cast at Culiacan in Sinaloa, using as a model the old liberty cap peso as in the previous instance.

1913 - 1916	II
<p>3 Peso. Same as No. 1, but showing the design more clearly.</p> <p>Size 39 mm. Weight of five specimens examined, 26.50, 27.26, 27.43, 29.31, 29.64 gr. (409, 421, 423.5, 452.5, and 457.5 grains). Silver. Plate II.</p> <p>These dollars, for the most part, show the design better than did the Buelna specimens, but the edges were left very rough and consequently had to be filed considerably. They can be distinguished more readily from the Buelna pieces by their weight. They are also rare because the bullion value in them was in excess of their face value, especially as the low valuation of the paper money made it profitable to melt them up. They assay about nine-tenths silver, one-tenth copper, and a small showing of gold.</p> <p>The next issue was a series of struck coins made at Parral in Chihuahua. It is said that the silver had been confiscated from near-by mines, and the rumor went around that they contained considerable gold. This, however, is probably not so. There are various conflicting accounts</p>	<p>Parral Issues</p>
AND MONOGRAPHS	

about these coins. One statement is that General Maclovio Herrera gave the order to make this money, another account is that General Villa personally authorized it. Both versions may be correct. At any rate this issue is known as Villa's first coinage, and it was probably first struck in October, 1913. Although it was thought that but few were struck, there is no doubt that a great many pieces were made — sufficient to meet the demand for these coins from collectors. This fact can be stated about these and subsequent coins of the revolutionists, namely, that more are undoubtedly seen in the United States than in Mexico, as the very large issue of paper and cardboard money very soon drove out the metallic money. For another coin issued by General Herrera see No. 29.

The description of this issue is as follows :

4 Peso. *Obv.* H | DEL | PARRAL (Hidalgo del Parral), within a partial wreath and a half circle composed of annulets; at base, 1913.

Rev. 1 PESO. within partial wreath and half circle of annulets.

Edge reeded. Size 39 mm. Weights of pieces examined vary from 25.92 to 27.59 gr. (400 to 426 grains). Silver.

Plate III.

5 50 Centavos. *Obv.* FUERZAS CONSTITUCIONALISTAS ✧ 1913 ✧ (Constitutionalist Forces). In centre, a crude representation of the radiate liberty cap, dotted border.

Rev. 50 | CENTAVOS; above, a small radiate liberty cap on pole, at each side spray of leaves, dotted border.

Edge reeded. Size 30 mm. Weights vary from 12.96 to 13.47 gr. (200 to 208 grains). Silver.

Plate IV.

Specimens have been noted with plain edge.

The copper coinage consisted of a two-centavo piece. The trolley wire of the Parral-Santa Barbara Railway Company was used to make this coinage.

6 2 Centavos. *Obv.* 2 ¢ in wreath within a circle, outside of which FUERZAS CONSTITUCIONALISTAS E. Outside border of dots.

Muera
Huerta
Issues

Rev. Within circle a radiate liberty cap; outside and on each side, spray of leaves; below, 1913, made by stippling. Size 25 mm. Copper. Plate IV.

Probably the next issue, at any rate in the North, is the Muera Huerta piece. This was coined at Cuencamé, an old Indian village between Torreon and Durango, in Durango State, under orders of Generals Calixto Contreras and Severino Cenicerros.

This coin is most remarkable on account of its inscription — MUERA HUERTA (Death to Huerta). So dire a threat on a coin is almost unique in numismatic annals. It is said that Huerta was so enraged about it that he issued a proclamation to the effect that whoever was found in possession of one of these coins should be subject to death.

7 Peso. *Obv.* In centre, the regular Mexican eagle on cactus; above, EJERCITO CONSTITUCIONALISTA (Constitutionalist Army); below, — MUERA HUERTA —. Around border, continuous outer line and wide denticulations.

Rev. In centre a radiate liberty cap; above, ESTADOS UNIDOS MEXICANOS; below, .1914. UN PESO. 1914. Border as on obverse. Edge shows traces of crude reeding.

Size 39 mm. The two specimens examined weigh 21.70 and 22.61 gr. (335 and 349 grains). Silver. Plate V.

The die of the obverse became broken so badly (No. 7a, Plate VI), that a new die was cut.

8 Peso. *Obv.* Similar to No. 7, but instead of a linear border line, one composed of dots and dashes was substituted; also the denticulated border is less marked and the oval pellets on each side of MUERA HUERTA are larger.

Rev. Same as No. 7.

Edge coarsely reeded. Size 38 mm. Weights of pieces examined vary from 19.47 to 23 gr. (300.5 to 355 grains). Silver. Plate VI.

For No. 8a
see page 43

It is well to bear in mind the weights of the above as Villa very shortly obtained possession of the dies and struck heavier pieces from them in Chihuahua.

Durango
Issue

9 Peso. *Obv.* Same as No. 8.

Rev. Same as No. 8.

Edge plain or very slightly reeded.

Size 39 mm. Weight of piece examined 28.50 gr. (440 grains). Silver.

Besides the silver peso, there were issued in Durango, probably at Cuencamé, copper five-centavos and one-centavo pieces, crudely done and poorly struck. At least six sets of dies of the five centavos must have been made, as this number of dies has been noted. These pieces are somewhat rare, especially the one-centavo.

10 5 Centavos. *Obv.* In centre, 1914; above, ESTADO DE DURANGO; below, a wreath.

Rev. Within a circle of four pointed stars, 5 CENTAVOS.

Size 24 mm. Copper. **Plate VII.**

11 5 Centavos. *Obv.* Similar to No. 10, but the inscription reads E. DE DURANGO, and the date 1914 is smaller.

Rev. Similar, but 5 CENTAVOS is smaller.

Size 24 mm. Copper. **Plate VII.**

Three dies of this variety have been noted.

12 5 Centavos. *Obv.* Similar to No. 10, but the 1914 is smaller and lower down in the field, and the N in DURANGO is retrograde.

Rev. Similar but the c in centavos made thus, £.

Size 24 mm. Copper. Plate VII.

13 5 Centavos. Same as No. 12 but struck in brass.

14 5 Centavos. *Obv.* Similar to No. 10 but the 1914 is still smaller.

Rev. Similar, but V CENTAVOS.

Size 24 mm. Copper. Plate VIII.

15 1 Centavo. *Obv.* In centre, 1914, very large; above, + ESTADO DE +; below, DURANGO.

Rev. 1 CENT within a wreath.

Size 20 mm. Copper. Plate VIII.

16 1 Centavo. Same as No. 15 but struck in lead.

Size 21 mm.

17 1 Centavo. *Obv.* In centre, 1914; above, E. DE DURANGO; below, three five-pointed stars.

Villa
Issues
Chihuahua

Rev. 1 CENT within a border of dots and dashes. The N in CENT is retrograde.

Size 20 mm. Copper. Plate VIII.

In 1914 the Villa issues with the exception of the Muera Huerta pieces just mentioned consisted of copper five-centavo pieces. These new coins must have been issued in great numbers, as they are very common and a large number of dies were used. The workmanship is decidedly better than the coinage of 1913 and the dies bear the name of Salazar. All of these pieces were struck in Chihuahua. The CHIH^A and CH^A are abbreviations of the state name.

18 5 Centavos. *Obv.* Radiate liberty cap inscribed LIBERTAD; below the rays, SALAZAR; above REPUBLICA MEXICANA; at bottom → E. DE CHIH^A ←

Rev. 5 ¢ in monogram in centre; above EJERCITO CONSTITUCIONALISTA; below, → 1914 ←

Size 25 mm. Copper. Plate IX.

19 Same as No. 18, but dated 1915.
Size 25 mm. Copper.

NUMISMATIC NOTES

- 20** 10 Centavos. *Obv.* Similar to No. 18, but larger and with denticulated border. *Rev.* Similar to No. 18, but with 10 ¢ in monogram in centre instead of 5 ¢. Size 27 mm. Copper. Plate IX.

The copper used to make these pieces is reported to have come from the telegraph and telephone wires of the vast Terrazas estates. The 10-centavos are not nearly as plentiful as the 5-centavos.

- 21** 5 Centavos. *Obv.* In centre, regular Mexican eagle on cactus; above, REPUBLICA MEXICANA; below, wreath. *Rev.* The same as No. 18, but incuse; everything being retrograde. Size 25 mm. Copper. Plate IX.

This piece is most peculiar on account of the incuse reverse. Since the writer has seen only this one piece, it is impossible to tell whether this was the reverse intended or not. It will be noted that the obverse is from a new die.

The silver issues of Villa for 1915 show decided improvement both in workmanship and in striking, although some of the plan-

chets were poorly prepared. They were struck at Chihuahua from bullion taken largely from the Chihuahua Smelter, a part of the American Smelting and Refining Company. The issuing of this coin enabled Villa to recruit many men for the Sonora campaign, as he was able to pay his troops in silver while the other leaders could pay their men only in depreciated paper money. This coinage ran into millions. The obverse side bears the signature of Sevilla and the reverse that of Salazar.

22 Peso. *Obv.* In centre, regular Mexican eagle on cactus, near ground SEVILLA; above, REPUBLICA MEXICANA; below, wreath.

Rev. In centre, radiate liberty cap inscribed LIBERTAD, with SALAZAR underneath; above, EJERCITO DEL NORTE (Army of the North); below, UN PESO. CH^A. 1915. F.M. 902.7.

Edge reeded. Size 39 mm. Weights of pieces examined vary from 26.80 to 27.86 gr. (414 to 430 grains), and were .903 fine. Silver. Plate X.

1913 - 1916	21
<p>The army of the North did not confine its mints to Chihuahua province, as we find a series of copper coins struck in Jalisco. The commander of the army in this state was Manuel M. Dieguez.</p> <p>23 5 Centavos. <i>Obv.</i> Radiate liberty cap, inscribed LIBERTAD, similar to No. 18; above, REPUBLICA MEXICANA; below, 1915. <i>Rev.</i> 5 ¢ in monogram in centre; above, EJERCITO DEL NORTE; below, EDO. DE JAL. (Estado de Jalisco). Size 24 and 25 mm. Copper. Plate XI.</p> <p>Three different die varieties have been noted, one apparently without the word LIBERTAD on cap.</p> <p>24 2 Centavos. <i>Obv.</i> Similar to No. 23. <i>Rev.</i> Similar, but with 2 ¢ instead of 5 ¢. Size 21 mm. Copper. Plate XI.</p> <p>These pieces vary from 2½ to 1½ mm. in thickness.</p> <p>25 1 Centavo. <i>Obv.</i> Similar to No. 23. <i>Rev.</i> Similar, but 1 ¢ instead of 5 ¢. Size 19 mm. Copper. Plate XI.</p>	<p>Jalisco Issue</p>
AND MONOGRAPHS	

Aguas-
calientes

Francisco Villa struck the following coins in Aguascalientes.

26 20 Centavos. *Obv.* In centre, regular Mexican eagle on cactus; above, ESTADO DE AGUASCALIENTES; below, olive wreath.

Rev. Partly within an olive wreath, 20 CENTAVOS 1915.; above, a radiate liberty cap on pole.

Size 29 mm. Copper.

27 5 Centavos. *Obv.* Similar to No. 26. *Rev.* Similar, but 5 CENTAVOS. 1915, instead of 20 centavos.

Size 25 mm. Copper. **Plate XII.**

28 5 Centavos. *Obv.* Similar to No. 26. *Rev.* 5 ¢ in monogram within olive wreath; above, 1915.

Size 25 mm. Copper. **Plate XII.**

Madero
Brigada
Coahuila

In the state of Coahuila General Maclovio Herrera, as Commander of the Brigada Francisco I. Madero, issued during 1915 a 20 centavos piece in copper. The S. N. D. P. on the obverse of the coin is said to be the motto of the Brigade. Two versions have been given of the meaning,

and probably the first is the correct one. They are as follows: — Servicio Nacional Deuda Publica (National Service, a Public Debt), or Sufragio Nacional, Derecho Publico (National Suffrage, a Public Right). For other pieces struck by this general, see page 12.

29 20 Centavos. *Obv.* In centre, Mexican eagle similar to that used on the regular Mexican 10 centavos of 1899; below 1915. Around edge BRIGADA FRANCISCO I. MADERO + S.N.D.P. +

Rev. 20 CENTAVOS, above + TRAN-SITORIO +

Size 29 mm. Copper. **Plate XII.**

Two sets of dies of this piece have been noted.

The above comprise the revolutionary coin issues of the North.

In the South, Emiliano Zapata had been conducting a revolution from the very first, but his numismatic evidences began only in 1914. These at first consisted of two-peso pieces about the exact size of a single peso piece, and one-peso pieces about the size of a 50-centavo piece.

Zapata
Issues

Guerrero
State

Later, the two-peso piece was reduced in size and weight, and a 50-centavo piece was added. Still later, a copper issue appeared. These, for the most part, were coined in Guerrero at Taxco in the northern part of the state. This town is sometimes spelled Tasco. One piece has been noted with the mint name Atlixac, a town in the eastern part of Guerrero. The abbreviation Co. Mo. or C.M. is for Campo Morado (Purple Camp), a rich mining camp in the state which supplied the silver for the coinage.

30 2 Pesos. *Obv.* In centre, regular Mexican eagle on cactus, from the base of which spring sprays of oak and olive; above, REPUBLICA MEXICANA; below, ★ DOS PESOS. GRO. 1914:

Rev. A mountain range of three peaks; the centre one a smoking volcano, above and in centre a radiate sun; across topmost rays, ORO: 0,595. Around edge, "REFORMA, LIBERTAD, JUSTICIA Y LEY" (Reform, Liberty, Justice and Law).

Edge reeded. Size 39 mm. Silver.
Plate XIII.

The GRO on the obverse is for Guerrero, the state where the pieces were made.

The weights vary from 17.46 to 27.42 gr. (269.4 to 421 grains). There seem to have been two periods of striking these, as the heavier ones are comparatively well struck while the lighter ones are very poorly struck on wretchedly made planchets. See fig. 30a, **Plate XIV**. A number of dies were used, but as the intent seemed to be to make them alike, no special mention of the minor differences is thought necessary. Also a cast piece, possibly a counterfeit, has been noted weighing 29.29 gr. (423 grains).

31 2 Pesos. *Obv.* Similar to No. 30, but the lower part of the legend reads *DOS PESOS. ^{GRO}. 1915 *
Rev. Similar to No. 30.
 Size 40 mm. Silver.

32 2 Pesos. *Obv.* Similar to No. 31, but no line under RO of GRO.
Rev. Similar to No. 30, but c^o. m^o., in exergue.
 Size 39 mm. Silver. **Plate XV.**

- 33 2 Pesos. *Obv.* Same as No. 32.
Rev. Similar to No. 32, but exergue
 reads * Ç^o. M^o. *
 Size 39 mm. Silver.

The edges of the 1915 issues are reeded
 as in the previous year but some are so
 lightly done as hardly to show. The
 pieces noted of this year vary in weight
 from 22.94 to 29.47 gr. (354 to 455 grains).

- 34 2 Pesos. *Obv.* In centre, regular
 Mexican eagle on cactus; above,
 REPUBLICA MEXICANA; below, wreath
 of oak and olive.
Rev. Radiate liberty cap inscribed LIBER-
 TAD; below, DOS PESOS. C. M. GRO. 1915.
 Edge plain. Size 35 mm. Weight of
 the two specimens examined 18.66 and
 20.08 gr. (288 and 310 grains). Silver.

Plate XVI.

- 35 Peso. *Obv.* In centre, regular Mex-
 ican eagle on cactus from the base of
 which spring sprays of oak and olive;
 below base, 1914; above REPUBLICA
 MEXICANA.; below, * UN PESO Ç^o.
 M^o. G^{ro} *
Rev. In centre, radiate liberty cap on

pole, below ORO: :0,300. Around edge, "REFORMA, LIBERTAD, JUSTICIA Y LEY". Size 33 mm. Silver. Plate XVI.

This very poorly struck specimen is the only one that has come to the writer's attention and weighs 16.52 gr. (255 grains).

36 Peso. *Obv.* In centre, regular Mexican eagle on cactus, from the base of which spring sprays of oak and olive; above, REPUBLICA MEXICANA.; below, * UN PESO. CAMPO M^o.*

Rev. In centre, radiate liberty cap inscribed LIBERTAD within a wreath of oak and olive; above, GRO | ORO: 0,300; around edge, "REFORMA, LIBERTAD, JUSTICIA Y LEY" 1914.

Edge plain. Size 31 mm. Silver.

Plate XVII.

37 Peso. *Obv.* Similar to No. 36, but inscription at bottom reads only * UN PESO.

Rev. Similar to No. 36 but liberty cap not inscribed.

Edge reeded. Size 30 mm. Silver.

38 Peso. *Obv.* Similar to No. 37, but the sprays at base of cactus extend slightly

beyond the eagle's wings, and the inscription at the bottom reads ★ UN PESO ★

Rev. Same as No. 36.

Edge plain. Size 31 mm. Silver.

39 Peso. *Obv.* Similar to No. 37, but the oak and olive spray extends nearly to the edge of the coin. Inscription at bottom ★ UN PESO.

Rev. Similar to 36.

Edge plain. Size 31 mm. Silver.

Plate XVII.

The weights of these peso pieces Nos. 36 to 39 vary from 12.57 to 14.52 gr. (194 to 224 grains).

40 Peso. *Obv.* Similar to No. 38, but bottom inscription reads ★ UN PESO.

Rev. Similar, but inscription above Liberty cap reads TAXCO. GRO. | ★ G. | ORO: 0.300. and date in exergue 1915.

Reeded edge. Size 30 mm. Silver.

Plate XVIII.

Two specimens examined weighed 10.89 and 12.44 gr. (168 and 192 grains) respectively.

41 50 Centavos. *Obv.* In centre, regular Mexican eagle on cactus; above, ★ REPUBLICA ★ MEXICANA ★; below, wreath of oak and olive.

Rev. Within an olive wreath, - 50 ¢ | TAXCO | GRO.; above, radiate sun bearing date 1915.

Plain edge. Size 28 mm.

Weight of only specimen examined 8.81 gr. (136 grains). Silver. Plate XVIII.

42 50 Centavos. *Obv.* In centre, regular Mexican eagle on cactus; above, REPUBLICA MEXICANA; below, oak and olive wreath.

Rev. Within an olive wreath, 50 | CENTAVOS; above, C. M. GRO. | 1915.

Size 30 mm. Copper. Plate XIX.

43 5 Centavos. *Obv.* Same as No. 41.

Rev. Within an olive wreath 5 ¢ in monogram; above, ★ TAXCO. GRO. 1915.

Size 28 mm. Copper. Plate XIX.

44 10 Centavos. *Obv.* In centre, regular Mexican eagle on cactus; above, REPUBLICA MEXICANA; below, oak and olive wreath.

Zapata
Issues
Morelos
State

Rev. Within an olive wreath, 1915 | 10
| CENTAVOS; above, ATLIXTAC. GRO.

Size 28 mm. Copper. Plate XIX.

From the state of Morelos, controlled by Zapata, the following pieces have been noted, but the writer feels certain that these three specimens do not represent all of the varieties issued.

45 20 Centavos. *Obv.* Regular Mexican eagle on cactus; above, E. L. DE MORELOS (Free State of Morelos); below, wreath of oak and olive.

Rev. 20 ¢ in monogram within an olive wreath; above, 1915.

Size 24 mm. Copper. Plate XX.

46 50 Centavos. *Obv.* In centre, regular Mexican eagle on cactus, from the base of which spring sprays of oak and olive; above, REPUBLICA MEXICANA; below, MORELOS.

Rev. 50 CENTAVOS within olive wreath; above, 1916.

Reeded edge. Size 29 mm. Copper.
Plate XX.

47 10 Centavos. *Obv.* In centre, regular Mexican eagle on cactus; above, RE-

NUMISMATIC NOTES

PUBLICA MEXICANA; below, wreath of oak and olive.

Rev. Within olive wreath, MOR | 1916 | 10 | CENTAVOS.

Size 28 mm. Copper. Plate XX.

Of all the revolutionary coins, those produced in the independent state of Oaxaca, during the governorship of José Inez Davila in 1915, form the most extensive series, especially as regards denominations and die varieties. Outside of the mint of Mexico City, the only gold that was struck during this recent period of disturbance was from the Oaxaca mint, where a genuine effort was made to provide an adequate coinage to meet all local demands. This coinage circulated freely in Oaxaca city and the neighborhood. Notwithstanding the attempt to keep paper and bullion money somewhat on a parity, the coins were frequently melted down, so that the number of pieces in circulation was never very large. On March 3, 1916, the Carranza forces overcame the Oaxaca government, seized and

Oaxaca
Issues

melted down all of this coinage they could find, and destroyed the dies and archives, so that today these pieces are scarce, especially in the United States. The denominations issued were as follows: in gold, 60, 20, 10, and 5 pesos; in silver, 5, 2, and 1 pesos, 50 and 20 centavos; in copper, 20, 10, 5, 3, and 1 centavos. As there were various changes in designs and sizes, together with frequent mulings of obverse and reverse dies, it is claimed that a complete set of this Oaxaca issue would number about one hundred and fifty varieties.

Teofilo Monroy was the director of the mint and his son Miguel cut the dies, although those for the first series of copper coins were made by an American resident of the city named De Coe. Some of the punches used to make them were those found in the old mint. The obverse type, for the most part, was of one design — the bust of Benito Pablo Juarez facing left, and the inscription Estado L. y S. de Oaxaca (Free and Sovereign State of Oaxaca) and the date 1915.

The whole issue bears the date 1915, except the 60-pesos piece. This coin was made in the early part of 1916 shortly before the Carranza forces came in, and it is said that partly on this account and partly on account of the scarcity of bullion but twenty-one of these were struck. Each of these pieces contained 45 grams of pure gold.

48 20 Pesos. *Obv.* Bust of Juarez to left. ESTADO L.Y S. DE OAXACA ★ 1915 ★ scalloped border of half circles enclosing half dots.

Rev. Partly enclosed in oak wreath 20 | PESOS | 0.175 | ORO; above, MONEDA PROVISIONAL; in exergue T. M; scalloped border of half circles and half dots.

Edge reeded. Size 28 mm. The two specimens noted weighed 11.31 and 12.21 gr. ($174\frac{1}{2}$ and $188\frac{1}{2}$ grains). Base gold.

Plate XXI.

49 10 Pesos. *Obv.* Similar to No. 48, except that the border is composed of arcs rather than half circles.

Rev. Similar to No. 48, except 10 instead of 20.

Oaxaca
Gold

Edge reeded. Size 23 mm. The two specimens examined weighed 6.22 and 6.28 gr. (96 and 97 grains) respectively. Base gold. **Plate XXI.**

50 5 Pesos. *Obv.* Similar to No. 49 except that the date runs into the coat of Juarez and the stars are four pointed. *Rev.* Similar to No. 49 except 5 instead of 10, and a period after PESOS. The border is composed of arcs rather than half circles.

Edge reeded. Size 19 mm. The two specimens examined weighed 3.34 and 3.79 gr. ($51\frac{1}{2}$ and $58\frac{1}{2}$ grains) respectively. Base gold. **Plate XXI.**

These three pieces, as the title 0.175 indicates, are of very base gold. They present an extremely brassy or lemon-colored appearance. The initials T M on the reverses of these and most of the other coins are for Teofilo Monroy, the director of the mint.

Oaxaca
Silver

51 5 Pesos. *Obv.* Similar to No. 49. *Rev.* In centre 5, in circle AG 0.902 AU 0.010 PESOS; above MONEDA PROVISIONAL; below, oak wreath and T M.

Edge reeded. Size 31 mm. Of the several pieces examined, the weights vary from 16.62 to 16.78 gr. (256½ to 259 grains). Silver. Plate XXI.

52 5 Pesos. Same as No. 51, but size 32½ mm. and weight 17.30 gr. (267 grains). One obverse and two reverse dies have been noted.

53 2 Pesos. *Obv.* Same as No. 49.
Rev. Similar to No. 51 but 2 in place of 5.

Edge reeded. Size 22 mm. Weights noted vary from 5.96 to 6.48 gr. (92 to 100 grains). Silver.

Two obverse and one reverse dies have been noted, one of the reverse dies being the same as used on the 10-peso piece, No. 49. Proofs in copper were also struck. This style of the two-peso piece is known as the fourth issue.

54 2 Pesos. *Obv.* As No. 53, but no punctuation in legend.

Rev. A pair of scales over scroll of the Constitution and a sword in saltire; on the scroll, LEY; above, liberty cap in a

glory. Around, MONEDA PROVISIONAL; below, 2 PESOS.

Edge, rope pattern. Size 33 mm. The specimens that have been weighed vary from 14.19 to 14.77 gr. (219 to 228 grains). Silver. Plate XXII.

But one set of dies has been noticed, and this variety is known as the first issue.

55 2 Pesos. *Obv.* Same die as No. 54 but commas added after L, S, and end of legend.

Rev. Similar to No. 54, but DOS PESOS. instead of 2 PESOS.

Edge, rope pattern. Size 34 mm. Weights vary from 14.00 to 14.45 gr. (216 to 223 grains). Silver. Plate XXII. This is known as the second issue.

56 2 Pesos. *Obv.* Similar, but the die being intended for a peso piece, the edge of the die shows, making a broad confining band outside the border of arcs.

Rev. In centre, 2 PESOS; above, MONEDA PROVISIONAL; below, oak wreath and T M. Border composed of arcs of circles.

Edge, rope pattern, size 31 mm. The weights of the several pieces examined vary from 15.36 to 16.98 gr. (237 to 262 grains). Silver. Plate XXIII. This is known as the third issue.

The edges of most of the balance of the series are of the rope pattern and consequently will not be noted.

57 1 Peso. *Obv.* Same dies as No. 56.
Rev. Similar to No. 56 but UN PESO instead of 2 PESOS and without the T M.
 Size 28 mm. Weight 8.51 gr. (131½ grains). Silver.

58 1 Peso. *Obv.* Same as above.
Rev. Same as above.
 Size 26 mm. Average weight 7.71 gr. (119 grains). Silver. Plate XXIII.

At least three obverse dies have been noted, one of which is the same die as No. 57. Two reverse dies were used and on one of these the initials T M were added, making three varieties.

59 50 Centavos. *Obv.* Similar to above.
Rev. Similar to No. 58 but 50 CENTAVOS in place of UN PESO.

Size 22 to 23 mm. Weights from 4.08 to 5.57 gr. (63 to 86 grains). Silver.

Plate XXIII.

Five obverse dies are known, one of which is the same as that used on the 10-peso piece No. 49 and the 2-peso piece No. 53. One reverse die only has been noted, this being found with and without the initials T M.

60 A silver twenty-centavo piece has been reported. This was issued for a short time prior to the copper 20-centavo piece, and then discontinued. No specimen is known in the United States, and the details of size, weight, etc., are lacking.

Oaxaca
Copper

61 20 Centavos. *Obv.* Similar to No. 51. *Rev.* Similar to No. 59, but 20 CENTAVOS in centre, no initials.

Size 31 mm. Copper.

62 20 Centavos.

Obv. Similar to above.

Rev. Similar to above.

Size 28 mm. Copper. Plate XXIV.

Five obverse dies have been noted, four of which are those of the one-peso

and that of the 20-peso piece. Two reverse dies appear to have been used, one with and one without the initials T M.

63 10 Centavos. *Obv.* As above, but with the head of Juarez without modeling and tip of bust pointed.

Rev. Same as above but 10 CENTAVOS.

Size 26 mm. Thick and thin planchets.

Copper.

Plate XXIV.

The thick specimens were the first issued of the copper pieces and were soon melted down.

64 10 Centavos. *Obv.* Same as No. 58.

Rev. Similar to No. 63.

Size 26 mm. Copper.

There appear to have been at least four obverse dies used, all of which were of the one-peso piece, while two or possibly three reverse dies were used, with and without the T M.

65 5 Centavos. *Obv.* Similar to No. 63.

Rev. Similar to No. 63 but 5 CENTAVOS.

Thick planchet. Size 24 mm. Copper.

This piece belongs to the first issue.

66 5 Centavos. *Obv.* Same as No. 65.

Rev. Same as No. 65.

Thin planchet. Size 22 mm. Copper.

67 5 Centavos. *Obv.* Same as No. 59.

Rev. Similar to No. 65.

Size 22 mm. Copper.

The obverse dies are the same as used on the 50 centavos, as well as on the 10 pesos and 2 pesos. (Nos. 49 and 53 respectively); and at least three reverse dies were employed.

It has been reported that the first die cut showed a facing head of Juarez. This could easily have proved unsatisfactory, necessitating the adoption of the profile. These pieces are undoubtedly extremely rare.

68 3 Centavos. *Obv.* ESTADO | L.Y.S.

DE | OAXACA | 1915 in rectangular frame.

A five pointed star in each corner.

Rev. PROVISIO | NAL . TRES | CEN-

TAVOS | · — TM — · in rectangular frame.

A five pointed star in each corner.

Rectangular 24 × 16 mm. Plain edge.

Copper.

Plate XXIV.

This and No. 71 were makeshifts while other dies were being prepared, and very few got into circulation.

69 3 Centavos. *Obv.* Similar to the gold 5-pesos piece No. 50 but with border of half circles and dots as on No. 48.

Rev. Similar to above but in centre a large flat topped 3; below, CENTAVOS. The N is retrograde. Border of half circle.

Size 20 mm. Copper. Plate XXV.

70 3 Centavos. *Obv.* Same die as 69.

Rev. Similar, the 3 is smaller and with a round top; T M added above wreath.

Size 20 mm. Copper. Plate XXV.

It is said that the obverse die was intended for the gold 5-pesos piece No. 50 but was too large.

71 1 Centavo. *Obv.* Similar to No. 68 but inscription in three lines, the date being omitted. Dotted instead of linear border, and no stars in corners.

Rev. Inscription in three lines instead of four as on the three-centavo piece, the T M being omitted. The word UN.

being substituted in place of the Tres.

Rectangular 19×13 mm. Plain edge.
Copper. Plate XXV.

72 1 Centavo. *Obv.* Similar to 63.
Rev. Similar to 65 but 1¢ in centre.
Thick. Size 18 mm. Copper.
Plate XXV.

73 1 Centavo. *Obv.* and *Rev.* same as above.

Size 19 mm. Copper.

These are found on thick and thin planchets and two dies for both obverse and reverse were employed.

Oaxaca
1916

Gold

Judging from the only example of the coinage for the next year, the issues for 1916 would have been equally extensive and in all probability of better workmanship, if the Davila government had remained in power at Oaxaca. As it happened, the Free and Sovereign State of Oaxaca closed its numismatic existence with probably the most interesting as well as best executed specimen of the revolutionary coins.

74 60 Pesos. *Obv.* In centre within an open wreath of olive and oak, an undraped bust of Juarez facing left. Surrounding this the legend: ESTADO L. Y S. DE OAXACA—60 PESOS ORO. Ornamented border.

Rev. In centre, a pair of scales over scroll of the Constitution and a sword in saltire; on the scroll, LEY; above, liberty cap in glory. Around, REPUBLICA MEXICANA—902.7 * T.M. * 1916. Ornamented border.

Edge reeded. Size 39 mm. Weight 50 gr. (772 grains). Gold. Frontispiece.

Copper impressions are also known of this piece.

ADDENDA

Since going to press, the following Muera Huerta peso has been discovered. On account of its crudeness it may have been the first one of this series cut, and was then discontinued when better dies were prepared. See Nos. 7 and 8. This peso is undoubtedly an authorized piece made in Durango, as the edge was reeded by the same machine that made the other

New Muera
Huerta Peso

coins. The die work is interesting, as the obverse lettering clearly shows that the same die-cutter made this who cut the Parral 50-centavo piece, No. 5; and the reverse lettering and stars are of the same style as on the Durango centavo, No. 17.

8a. Peso. *Obv.* In centre, the regular Mexican eagle on cactus; above, • EJERCITO CONSTITUCIONALISTA •; below, MUERA HUERTA. Border of irregular denticulations.

Rev. In centre, a radiate liberty cap; above, ESTADOS UNIDOS MEXICANOS; below, UN PESO | 1914; at each side, three stars. Border of dots and irregular denticulations.

Edge crudely reeded. Size 39 mm. Weight 23.88 gr. (369 grains).

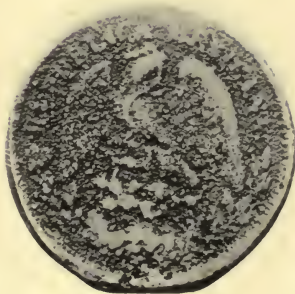
Plate XXVI.



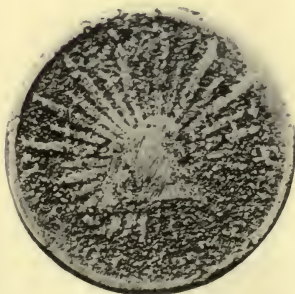
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Buelna Peso. Sinaloa



3



Carrasco Peso. Sinaloa



4



Parral Issue. Chihuahua



5



6



Parral Issue. Chihuahua





7



Muera Huerta Peso. Durango





7a



8

Muera Huerta Pesos





10



11



12



Durango Copper Issues



14



15



17



Durango Copper Issues



18



20



21



Villa's Copper Issues. Chihuahua



22



Villa's Peso. Chihuahua



23



24



25



Jalisco Copper Issue



27



28



29



Villa's Aguascalientes Issue (27, 28)
Madero Brigade. Coahuila (29)





30



Zapata Two Pesos, 1914. Guerrero



30a



Zapata Two Pesos, 1914. Guerrero



32



Zapata Two Pesos, 1915. Guerrero



34



35



34



Zapata Issues. Guerrero



36



39



Zapata Pesos, 1914. Guerrero



40



41



Zapata Issues, 1915. Guerrero



42



43



44



Zapata Copper Issues, 1915. Guerrero



45



46



47



Zapata Copper Issues. Morelos



48



49



50



51



Oaxaca Issues. Gold Alloys



54



55



Oaxaca Silver, Two Pesos



56



58



59



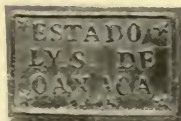
Oaxaca Silver Issues



62



63



68



Oaxaca Copper Issues



Oaxaca Copper Issues





8a



Muera Huerta Peso.

NUMISMATIC NOTES AND MONOGRAPHS

No. 5



THE JENNY LIND MEDALS AND TOKENS

By LEONIDAS WESTERVELT

THE AMERICAN NUMISMATIC SOCIETY
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A



JENNY LIND.

From a lithograph by
Sarony, New York, 1850,
in the collection of the Author.

THE JENNY LIND MEDALS AND TOKENS

BY

LEONIDAS WESTERVELT



THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
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THE JENNY LIND MEDALS AND TOKENS

By LEONIDAS WESTERVELT

JENNY LIND, the famous prima donna, was born at Stockholm, Sweden, October 6th, 1820, in comparatively humble circumstances. She received her dramatic education and early training at the Musical School of the Royal Theatre, where she made her debut in 1838, singing the important rôle of Agatha in Weber's *Freischütz*.

During the following six years she appeared with marked success in Finland, Denmark, Germany and Austria.

Her first great triumph, however, was achieved in 1844 at the Court Theatre, Berlin, where owing to Meyerbeer's influence she had been engaged.

NUMISMATIC NOTES

On the 18th of February, 1847, occurred in Vienna the memorable performance of Meyerbeer's *Vielka*. The chief rôle in this opera had been expressly written for Jenny Lind, and at the final fall of the curtain a graceful compliment awaited her. Radnitzky, on behalf of the music lovers of Vienna, had designed an appropriate and finely conceived medal (see No. 17), which, struck in gold, was presented to the young Songstress, together with a scroll, encircled by a silver laurel wreath, bearing the signatures of leaders in the Viennese Art-world.

The prima donna's noted London debut took place on May 4th of the same year. She had chosen the part of *Alice* in *Roberto il Diavolo*, one of her most successful rôles, and the crush caused by those who clamored to hear her is said to have been terrific. The Queen, the Prince Consort, the Queen Dowager, and other members of the Royal Family were present, as well as representatives from almost every important family in London. The entire performance appears

to have called forth one long-sustained ovation.

To mark this epochal event in Jenny Lind's career, an artistic medal was struck by Allen and Moore of Birmingham (see No. 25).

The following Spring, at the request of King Oscar I of Sweden, Jenny Lind returned to Stockholm, the city which lay so close to her heart, for a brief engagement at the Royal Theatre. She was to give eight concerts, only; the tickets were put up at auction, and the entire profits generously donated by her to the fund for the education and support of pupils of the Royal Theatre School. Thus did the Nightingale charmingly pay a debt of gratitude to the theatre which first gave her voice to the world.

In June, 1848, she received a tribute illustrating in a remarkable manner the deep-felt affection of her co-patriots. A portrait medal (see No. 1), dignified in conception and graceful in line—much the finest, in our opinion, of all the Jenny Lind medals—was designed by the famous

Swedish medallist Quarnstrom, and struck in gold, in silver and in bronze at the Royal Mint. The medals were presented to the Songstress with an address signed by the King, the Royal Family, and almost every person of prominence in Stockholm's c  terie of Art and Music.

These three medals were treasured by the recipient throughout her life, and were left to the National Museum in Stockholm, where they now are.

January 9th, 1850, was a most important day in the career of Jenny Lind, since it was then she signed the contract for an American concert tour under P. T. Barnum's management; a venture which was to bring her fresh laurels and a substantial fortune.

When we consider how she had set all Europe aflame; had been admitted to be the greatest of living singers by the first musical critics of England, Prussia, Austria, Sweden, and Denmark, and even by a large portion of the critical press of Paris; when we read how people fought to hear her in London; how in Berlin,

bouquets were thrown at her feet; how in Vienna, the students unhitched the horses of her carriage and drew her through the streets in triumph; how the Queen Dowager of Sweden opened her jewel casket that Jenny might choose a souvenir; it is hard to believe that millions of Americans scarcely knew her name.

Notwithstanding this, Mr. Barnum risked a guarantee of \$187,500 before the prima donna set sail. But in his memoirs, he frankly and shrewdly explains his reasons for the venture,—which ultimately proved so enormously profitable:

“ I may as well state, that although I relied prominently upon Jenny Lind's reputation as a great musical *artiste*, I also took largely into my estimate of her success with all classes of the American public, her character for extraordinary benevolence and generosity. Without this peculiarity in her disposition, I never would have dared make the engagement which I did.”

An observant reporter who interviewed Jenny about the time of her arrival in

America furnishes us with a colorful word-picture of her charming appearance:

" Her figure is commanding, her action majestic, and her voice the freshest and sweetest ever heard. Her face which is of an oval cast, has all the characteristics of a Northern clime; and one can scarcely fail to recognize the unmistakable lineaments of birth and country. Though lacking what the world calls 'beauty', her face is nevertheless extremely pleasing and strongly indicative of a pure and noble character which finds expression in a clear open brow, an eye of peculiar brightness, and a sweet kind smile seems forever to linger around her small and well formed mouth.

" If we add to that, luxurious clusters of auburn hair, and hands and feet of extreme smallness, and beauty, you have a faint but in some measure truthful sketch of sweet, charming, generous, Jenny Lind."

Thousands of people are said to have covered the shipping and piers in the neighborhood of Canal Street, and the wharf was packed with wildly cheering humanity as the *S. S. Atlantic*, which brought her, swung into its berth. The ever prompt Mr. Barnum had already boarded the steamer by means of a

launch, and standing by the side of his noted visitor, benignly received his full share of the plaudits.

Mr. Nathaniel Parker Willis, Editor of the Home Journal, and quite a *beau* of the period, no doubt was among the throng on the pier, for he describes Jenny's arrival in a good naturedly caustic paragraph:

"All the stars in the Union have dimmed before the star of Jenny Lind. She walked like a conqueror from the ship to the dock-gates under an arcade of evergreens—and at its entrance the American eagle (stuffed) offered her flowers. All New York hung around her chariot on its way to the Irving House where she was lodged like a princess; and at midnight thirty thousand persons hovered about her hotel. At one in the morning, one hundred and fifty musicians came up to serenade her, led by seven hundred firemen, to pump upon the enthusiasm, we suppose, in case it should get red hot."

The days that followed must have been exciting ones for the Songstress. Accustomed as she was to homage, the furore she created in New York and in other American cities seems to have al-

most swept her off her feet. Indeed, she soon was obliged to leave the Irving House and take lodgings in a quieter part of the city, to escape an avalanche of invitations and attentions.

We hear of a glove *supposed* to be hers being sold at a good round price; of her shawl which happened to drop from a balcony, being instantly torn into shreds by the overzealous crowd below.

"Everything for sale has 'Jenny' to it!" remarked a lady in one of the shops. Judging from the following amusing news items, clipped from contemporary Boston papers, we are inclined to agree with her.

One enterprising Journal advertises a 'Jenny Lind tea kettle', which being filled with water and placed on the fire "commences to *sing* in a few minutes"!

"A provision dealer at Lynn," says the Post, "sells 'Jenny Lind sausages.'"

"On Washington street, near the Roxbury line, there is a bar-room just opened, under the name of 'Jenny Lind Hotel.'"

"Our foreman," avers a well known periodical, "made his appearance this

morning with a red and black plaid coat, which our 'devil' soon christened as the 'Jenny Lind coat'. If this is not the age of progress, what is it?"

Even the Editors, usually sedate and sober-minded, appear to have temporarily suffered from "Jenny Lind mania".

"Jenny Lind", declares an important weekly, "is the most popular woman in the world; at the present moment, perhaps the most popular that ever was in it." The same paper speaks of the Nightingale's warblings as notes "which she spins out from her throat like the attenuated fibre from the silkworm, dying away so sweetly and so gradually, till it seems melting into the song of the seraphim, and is lost in eternity".

To turn once more to the serious side of the prima donna's career, her first American concert was held in Castle Garden on Wednesday evening, September the 11th, 1850. Under Mr. Barnum's direction the 4,484 tickets were sold at public auction, the average price paid per ticket being \$6.38. The entire amount

received was \$17,864.05. Mr. John N. Gennin bid in the first ticket for \$225; regarding this incident, it is an open secret that he acted on the advice of the wily Mr. Barnum. The benefit derived was mutual however, since Gennin's name appeared in every paper in the Union and his reputation as a fashionable hatter was permanently established.

The immense success made by the Nightingale in her first concert is a matter of history and need not be dwelt on here, but it is interesting to note that true to her generous heart and wide sympathy, she freely gave her entire share of the proceeds of this concert and the second, over \$10,000, to charitable institutions in New York.

Mr. Barnum displayed his Yankee shrewdness by quickly taking advantage of the advertising value of this act; the medal struck under his supervision is characteristic of the showmen's craft (see No. 4). For the obverse, he freely borrowed the head on Radnitzky medal (see No. 17); the reverse, forcibly emphasizes the

MEDALS AND TOKENS

II

success of the first Castle Garden concert, and Jenny's benevolent gift. This medal, struck in white metal, undoubtedly sold in large numbers as an interesting souvenir.

After "taking New York by song", Jenny Lind visited Boston, Providence, Philadelphia, Washington and other prominent cities in the West and South, also journeying to Cuba where she remained a month. Everywhere she met with pronounced success and unqualified praise from both public and critics.

At the termination of the ninety-fifth concert she permanently concluded her engagement with Mr. Barnum, as a clause in the contract enabled her to do, and continued the tour under her own management.

On February 5th, 1852, while in Boston, she was married to Mr. Otto Goldschmidt, a friend of her girlhood, and a musician of note who had been her accompanist during the latter part of the American tour.

In the spring, Jenny Lind Goldschmidt passed through England on her way to

AND MONOGRAPHS

Germany. She gave occasional concerts in German and Austrian cities, and in 1863 once more delighted her admirers in London at an historic revival of Handel's music to the *Allegro* and the *Penseroso* of Milton.

During all her wanderings and triumphs, the Nightingale never forgot the city of her birth. She was made a member of the Royal Musical Academy of Stockholm in 1840, and in 1883, she returned to serve there as Professor of Singing for a term of three years.

Her death occurred at her home, among the beautiful Gloucestershire hills of England, November 2nd, 1887.

As a mark of appreciation of the untiring and devoted service of Jenny Lind Goldschmidt, the Academy in 1891 caused a very beautiful portrait memorial medal to be struck in her honor. (See No. 2.) It was designed by Adolf Lindberg, Engraver of medals to the King of Sweden, and struck in gold and in silver at the Royal Swedish Mint.

DESCRIPTION OF THE MEDALS AND
TOKENS

I PORTRAIT MEMORIAL MEDAL.

Obv. Draped bust, to left; legend, JEN-
NY—LIND. Below, close to border at
right, name of the engraver, P. H. LUND-
GREN, FEC.; at left, name of designer,
C. G. QUARNSTROM, INV.

Plate I

Rev. Four symbolic figures—Genius of
Song (with harp) is seated on throne,
Patriotism (with shield and palm) stands
right, Charity (holding child) left, and
Gratitude, bearing a wreath of immor-
telles, kneels at foot of throne; and in-
scribed on its base, the date 3 DEC.
1847 | D. 12 APRIL . 1848. In exergue,
MINNESGÄRD | AF TONKONSTENS VÄN-
NER | I STOCKHOLM—In memory of the
friends of Lyric Art in Stockholm. The
whole within a border of eight laurel
wreaths, alternating with eight harps;
ribbon streamers between. In the
wreaths are inscribed the chief operatic
rôles sung by Jenny Lind, viz: NORMA
—LUCIE—AGATHA—AMINA—SUSANNA—
ALICE—MARIE—ADINA.

Size 78 mm. Bronze.

Plate II

Struck at the Royal Swedish Mint in 1848.

Ludwig Petersen Lundgren, the engraver of the medal was Mint-engraver at Stockholm, 1818-1854.

The two dates given on the medal were the dates of the gifts (approximately \$9,165), made by Jenny Lind out of the profits of her last operatic season in Sweden, to the fund for the education and support of pupils of the Royal Theatre School.

Medals from this design were struck in gold, silver and bronze. They were presented to Jenny Lind in the spring of 1848, accompanied by the following address which bore the signatures of the King of Sweden, the Royal Family, and representatives of every important household in Stockholm :

“ To Jenny Lind —

“ The lovers of music at Stockholm have during the present spring, as well as during the winter season of 1847-1848 enjoyed a succession of memorable feasts, at which they have admired

alike the Artist's genius, and the nobility of heart wherewith she had dedicated her triumphs exclusively to charity and benevolence, and has thereby testified that the aim of true Art is something higher than to please and to astonish.

"Having been privileged to witness these festivals of Art where the beauty of the soul found its expression through the medium of song, the lovers and friends of music are desirous that the great Artist, on leaving her native country, should carry away with her some outward token of this period of her life, of which the inner memory, which is at all times the companion of virtue, will follow her through life; until that other world is unveiled to her, of which she has been the messenger to us through the language of music.

"The undersigned have received the agreeable charge of handing to her this simple souvenir."

2 PRIZE MEDAL OF THE ROYAL MUSICAL ACADEMY, STOCKHOLM.

Obv. Draped bust, to left; legend, JENNY LIND • GOLDSCHMIDT, FÖDD 6 OKT.

1820 DÖD 2 NOV. 1887 — Born Oct. 6th, 1820; died Nov. 2nd, 1887. In field, back of neck, the name of the designer, ADOLF LINDBERG,

Rev. The Goddess of Genius and Art seated to right, inscribing a name on a tablet with a stylus. On the left is a laurel branch and a lyre; on the right, an incense brazier and two books. Above Symbolic Figure, close to border, ANDA · OCH · KONST — The Spirit of Art. In the exergue, AF KONGL · MUSIKALISKA AKADEMIEN — By the Royal Musical Academy. The name of the designer is repeated close to the border at left.

Size 50 mm. Gold. Silver. **Plate III**

Struck by the Royal Musical Academy in 1891 at the Swedish Mint.

Adolf Lindberg, the designer was Professor of drawing at the official School of Art in Stockholm; also, "Engraver of Medals" to the King of Sweden.

3 As last. Bronze.

4 MEMORIAL MEDAL.

Obv. Head to left; legend, JENNY — LIND.

Rev. Inscription in two concentric circles, and four parallel lines in field; a star above first parallel line: FIRST CONCERT IN AMERICA | PROCEEDS 35,000 DOLLARS — AT CASTLE GARDEN | N. Y. SEP. 11. 1850 | ATTENDED BY | 7,000 PEOPLE — \$12,500 GIVEN BY MISS LIND TO CHARITABLE INSTITUTIONS

Size 42 mm. White metal. Struck in New York, 1850. Plate IV

5 As last. Bronze.

6 As last.

Size 40 mm. Cream colored composition.

7 JETON OR CARD COUNTER.

Obv. Head to left similar to preceding; legend, JENNY — LIND. On truncation of neck, the name of the die-sinker, LAUER.

Rev. JETON, lettering slightly oblique, encircled by two branches of oak leaves joined below by a knot of ribbon.

Size 22 mm. Gilt bronze. Plate V

Struck in Nuremberg.

Ludwig Christopher Lauer was a celebrated medallist and counter-manufacturer of Nuremberg, 1848-1873.

A similar jeton but with laurel branches instead of oak branches is reported. See Andorfer and Epstein's *Musica in Nummis*, p. 191.

8 JETON OR CARD COUNTER.

Obv. As last, but unsigned, and with milled border.

Rev. The word JETON in upright letters instead of slightly oblique; oak branches more bushy. Milled border.

Redder in color, containing more copper alloy. Slightly thicker.

9 JETON OR CARD COUNTER.

Similar to No. 7.

Size 19 mm. Brass. By Lauer.

10 JETON OR CARD COUNTER.

Obv. Similar to No. 7.

Rev. A spread eagle supporting a United States shield, and holding in its talons a branch of laurel and a bundle of arrows.

Above, JN UNITATE FORTITU — DO

— In Unity there is Strength. Below,
1850.

Size 22 mm. White metal. By Lauer.
Plate V

A specimen of this medal without signature is reported. See Andorfer and Epstein's *Musica in Nummis*. Note to No. 380.

11 As last. Copper. By Lauer.

12 JETON OR CARD COUNTER.

Obv. Similar to No. 7.

Rev. Within a laurel wreath, TENDIT AD ASTRA—She directs her course toward the stars.

Size 22 mm. Copper. By Lauer.
Plate V

13 JETON OR CARD COUNTER.

Obv. Similar to No. 7.

Rev. Within a wreath of laurel and oak branches tied with a knot, SPIEL-| PFENNIG.

Size 21 mm. Brass. By Lauer.
Plate VI

14 JETON OR CARD COUNTER.

Obv. As last. (Not signed.)

Rev. Within laurel wreath, SPIEL MARKE.
Size 20 mm. Metal not mentioned. By
Lauer. See Andorfer and Epstein's *Mus-ica in Nummis*. No. 977.

15 JETON OR CARD COUNTER.

Obv. Similar to No. 7.

Rev. Maltese cross surrounded by rays within a laurel wreath.

WER WAGT * GEWINNT — Nothing venture, nothing have. At bottom, rosette between two small stars.

Dentelated borders on obverse and reverse.

Size 16½ mm. Brass.

Plate VI

16 COMMEMORATIVE MEDAL.

Obv. Head to left. Legend JENNY LIND behind the head, close to border. At base of neck is the name of the designer, C. RADNITZKY.

Rev. A swan, the emblem of song, with branch of laurel; above, the motto NESCIT * OCCASUM — Her star remains in the ascendant. Below, DER | HOHEN KUNSTLERIN | IHRE BEGEISTERTEN | VEREHRER | MDCCCXLVII | WIEN — To

the famous Artist, from her enthusiastic admirers; Vienna, 1847.

Size 43 mm. Gold.

This medal was presented to Jenny Lind on the evening of the first performance of Meyerbeer's opera, "Vielka," (composed expressly for her) in Vienna, Feb. 18, 1847.

C. Radnitzky, the designer of the medal, was one of the most talented medallists of his generation. He was born in Vienna, 1818, and died in 1901.

17 As last, dark red composition.

Plate VII

18 MEMORIAL MEDAL.

Obv. As last, but the legend JENNY LIND is in front of the head and is followed by a small ornamental scroll. Date, 1850, at back of neck.

Rev. SUCH A SACRED | AND | HOME-FELT
DELIGHT | SUCH SOBER CERTAINTY | OF
WAKING BLISS | I NEVER HEARD | TILL
NOW . | MILTON.

Raised border, obverse and reverse.

Size 40 mm. Bronze.

Plate VIII

Struck in America, 1850.

The head on the obverse of this medal was copied from the Vienna medal. (No. 16.) The quotation on the reverse is from Milton's *COMUS*; lines 262-264.

19 As last. White metal.

20 JETON.

Obv. Similar to No. 4.

Rev. Similar to No. 16, except that the inscription below swan is omitted.

Size 19 mm. Brass. By Lauer.

21 As last. White metal.

22 MEDAL.

Obv. Similar to No. 4.

Rev. TO THE QUEEN OF SONG, in laurel wreath.

Size 14 mm. Milled edge. Silver.

Plate VI

23 MEDAL.

Obv. Head and bust facing front. Legend, JENNY LIND.

Size 67 mm. Copper shell.

24 MEDAL.

Obv. Similar to No. 23.

Rev. Blank.

Size 65 mm. White metal coppered.

25 COMMEMORATIVE MEDAL.

Obv. Head and shoulders facing front.
Legend, JENNY — LIND Date under
right arm close to border, 1847.

Rev. Lyre surrounded by cluster of lilies
and roses; nightingale resting on top
twig. Legend, above, NESCIT * OCCA-
SUM; below, NATA 1821.

Ornamental border, obverse and re-
verse.

Size 54 mm. White metal. **Plate IX**

Struck in Birmingham, England.

This medal was struck to commemorate
Jenny Lind's triumphant *debut* at Her
Majesty's Theatre, London, May 4th,
1847. The year of Jenny Lind's birth as
stated on this medal (1821) is erroneous.
She was born on October 6th, 1820. (See
No. 2.)

26 Similar to No. 25.

Size 55 mm. White metal gilded.

27 Similar to No. 25.

Size 54 mm. 6 mm. thick. Bronze.

28 Similar to No. 25.

Obv. Date under right arm omitted.

Size 27 mm. Copper.

29 As last. Bronze.

30 Similar to No. 25, except under right arm instead of date, initials A & M—Allen & Moore, the die-sinker's mark.

Size 45 mm. White metal.

Allen & Moore of Great Hampton Row, Birmingham, England—afterwards Joseph Moore, Sumner Lane and Pitsford St., have an excellent record in die-sinking, dating from about 1850. They may be regarded as following the best nineteenth century artists of the Birmingham school.

31 Similar to No. 30.

Size 38½ mm.

32 JETON.

Obv. Similar to No. 25.

Rev. Similar to No. 25, but nightingale omitted.

Size 22 mm. Brass.

MEDALS AND TOKENS

25

No. 2 is in the Royal Musical Academy, Stockholm; Nos. 3, 18, 26 and 27 are in the British Museum, London; Nos. 6, 15, 22 and 31 are from the collection of the American Numismatic Society, New York; Nos. 9, 13, 23, 24 and 28 are from the collection of Mr. Elliott Smith; No. 19 is from the collection of Mr. C. N. Hinckley; the remainder are from the collection of the author.

AND MONOGRAPHS

JENNY LIND

PLATE I











2







4







7



10



12







13



15



22





17





18





25





NUMISMATIC NOTES AND MONOGRAPHS

No. 6



FIVE ROMAN GOLD MEDALLIONS OR MULTIPLE SOLIDI OF THE LATE EMPIRE

By AGNES BALDWIN

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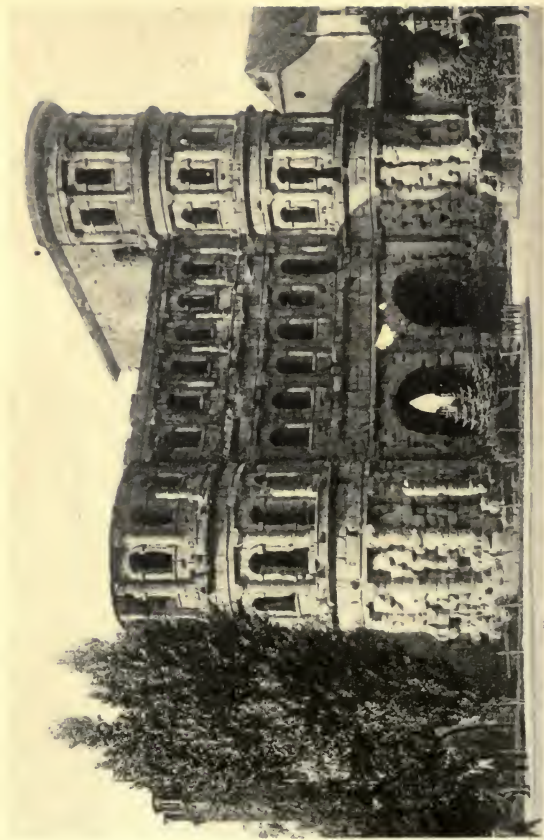
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7



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NUMISMATIC

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FIVE ROMAN GOLD MEDALLIONS

OR

MULTIPLE SOLIDI OF THE LATE EMPIRE

BY

AGNES BALDWIN



THE AMERICAN NUMISMATIC SOCIETY
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FIVE ROMAN GOLD MEDALLIONS

OR

MULTIPLE SOLIDI OF THE
LATE EMPIRE

by Agnes Baldwin

ROMAN gold medallions have come down to us from antiquity in much smaller number than the silver and bronze medallions. Nevertheless, it is quite probable that a considerable number were coined, but on account of the intrinsic value of the metal relatively few are now extant. It may be taken as a general principle that all Roman medallions are rare and, as Gnecci says, they form the most élite and aristocratic portion of a collector's cabinet. The following five pieces which are here presented are no exception to the rule above stated. The first four belong to the period of Constantine the Great,

306-337 A.D.; while the fifth is an issue of Valentinian I, 364-375 A.D.

The first medallion of the group, with a diademed head of Constantine the Great, is a unique piece which was not known to Cohen and is not illustrated in Gneecchi's famous work on the Roman medallions. It belongs to the Pierpont Morgan Collection, and was formerly in the collection of Consul Weber of Hamburg, into whose collection it came from that of Count Ponton d'Amécourt. The second medallion, bearing the portrait of Constantine II, son of Constantine the Great, is also in the Pierpont Morgan Collection, and it likewise was formerly in the Weber and Ponton d'Amécourt Collections. It is not unique, for the Brussels Collection possesses a second example from different obverse and reverse dies. The third piece, with a laureate head of Constantine the Great, belongs to the Collection of Dr. de Yoanna of New York City. It is known to us in some six or seven examples and is the commonest of the group here presented. The fourth piece, with a radiate head, also

of Constantine the Great, is now in the possession of Sir Arthur Evans who obtained it from the Consul Weber Collection. It is known to us in only three examples — one in the Evans Collection, one in Paris, and one in Berlin. The fifth medallion discussed here is a unique piece which is in the Brussels Museum, and was formerly in the collection of Count du Chastel. A letter from the Count du Chastel, dated June 2, 1896, referring to the famous Montagu Collection sold in 1896 gives us the very interesting information that this gold medallion had formerly belonged to the grandfather of the present Count du Chastel. The writer states that the medallion was stolen from his grandfather in his château at the time of the occupation of Belgium by foreign troops in 1794. This unique medallion had disappeared from view, which was a great loss especially as it had never been published. Later on, it appeared in the English catalogue of the Montagu Collection, lot No. 914, and was acquired by the present Count du Chastel, with whose

collection it passed into the National Collection of Brussels.

There is considerable interest from the historical viewpoint attaching to the four medallions of the period of Constantine the Great. The medallion of Valentinian offers perhaps less historical interest, but the fact that it is a unique example entitles it to our consideration. Furthermore, while Gneecchi figures this medallion on one of his plates, the reproduction is extremely poor and does no justice to the original.

Roman medallions have not formed the subject of such frequent discussion as they deserve. In the bibliography appended to this article, the chief sources in which the Roman medallions are discussed and illustrated have been listed. Those articles or books which deal with the subject most comprehensively are distinguished by an asterisk. Two works on this list are designated with a double asterisk. These are, namely, the great work in three volumes by Francesco Gneecchi, *I Medaglioni Romani*, published in 1912, and the article

by Friedrich Kenner, *Der Römische Medaillon*, *Num. Zeit.*, 1887, pp. 1-173.

These works are the most important for complete presentation of the subject, Gnecci's book giving us illustrations and a catalogue of nearly all of the known types, and Kenner's article furnishing the most complete analysis of the nature of the medallion. Briefer discussions on the nature of the medallion are found in the various articles by Gnecci in the *Riv. Ital.* An article dealing especially with the medallions of Constantine the Great and his family, but containing also some new material relative to the purpose of the medallion, is the one by O. Seeck in the *Zeit. f. Num.*, 1898, pp. 17-65. For general orientation, one should consult M. Babelon's *Traité des Monnaies Grecques et Romaines*, Vol. I¹, pp. 652-670.

Certain special articles, as is so often the case, throw a great deal of light on some phases of the problem presented by the medallions, and among these one might mention the articles of Sir John Evans and Sir Arthur Evans in the *Nu-*

mismatic Chronicle. As one would naturally turn to the subject of Greek medallions in any discussion of the nature and origin of the Roman medallion, some additional references on this subject are given at the end of the bibliography.

MEDALLIONS OF CONSTANTINE THE GREAT AND CONSTANTINE JUNIOR

CONSTANTINE THE GREAT, 306-337 A.D.

- 1 *Obv.* CONSTANTINVS AVG, *Constantinus Aug(ustus)*, "Constantine Augustus." Diademed head of Constantine the Great, to the right, with chin raised and eyes uplifted; border of dots.

Rev. VIRTVS D. N. CONSTANTINI AVG, *Virtus d(omini) n(ostri), Constantini Aug(usti)*, "The valor of our Lord, Constantine Augustus." Constantine walking to the right holding a spear in his right hand, carrying a trophy over his left shoulder, and thrusting his left foot against a captive seated in an attitude of distress, wearing a Phrygian cap and Oriental dress. In exergue, S I S, *Sis(ciae)*, "*Siscia*."

NUMISMATIC NOTES

Gold medallion. $4\frac{1}{2}$ solidi. 37 mm. 20.07 gr. Found at Semlin in Hungary (formerly in Weber and d'Amécourt Collections). Pierpont Morgan Collection.

Plate I.

Cat. Weber, No. 2592, Pl. xlv; Cat. d'Amécourt, 1889, No. 668, Pl. xxvi; Cohen, *Médailles Impériales*, Vol. VII, No. 688; Gneecchi, *Medaglioni Romani*, No. 64, p. 21.

CONSTANTINE II, JUNIOR, 317-337 A.D.
(BORN 316, DIED 340)

- 2 *Obv.* CONSTANTINVS IVN. NOB. CAES., *Constantinus Jun(ior) nob(ilis) Caes(ar)* "Constantine, Junior, noble Caesar." Laureate bust of Constantine Junior to the left wearing military cloak and cuirass; right hand holding globe surmounted by a figure of Nike, who holds in her right hand a wreath before the face of the Caesar, and bears a palm over her left shoulder; left hand placed upon the handle of a sword ending in an eagle's head; border of dots.

Rev. VOTIS DECENN. D. N. CONSTANTINI CAES. *Votis decenn(alibus) d(omini) n(ostri) Constantini Caes(aris) (solutis),*

"The Decennial vows of our Lord, Constantine Caesar (having been paid)." Two winged genii holding a festoon between them. In the exergue, S.M.TS. *S(acra) m(oneta) T(he)s(salonicae)*, "Sacred mint of Thessalonica."

Gold medallion. 3 solidi, or ternio. 32 mm. 13.48 gr. (formerly Weber and d'Amécourt Collections). Pierpont Morgan Collection. Plate II.

Cat. Weber, No. 2627, Pl. xlvii; Cat. d'Amécourt, No. 710, Pl. xxviii; Cohen, *Médailles Impériales*, Vol. VII, No. 277; Gneecchi, *Medaglioni Romani*, Pl. 9, No. 8 and p. 26, No. 21; J. Maurice, *Numismatique Constantinienne*, Vol. II, p. 466, No. xv.

These two medallions of Constantine the Great and his son, Constantine Junior, may best be discussed together since the occasion on which the second piece was issued will probably throw light upon the occasion for the issue of the larger medallion.

We may begin, therefore, with a description of the medallion of Constantine Junior. It is a triple solidus or ternio of

M E D A L L I O N S	9
<p>the mint of Thessalonica (Saloniki) in Thrace, and is a piece which can be definitely dated. The reverse inscription reads: <i>Votis decenn(alibus) d(omini)n(ostr)i Constantini Caes(aris) (solutis)</i>, - "The Decennial vows of our Lord, Constantine Caesar (having been paid)," and the reverse type consists of two small genii bearing a festoon. These small winged figures may represent the two periods of five years each, which make up the ten-year period at the end of which the Vota Decennalia were celebrated. A similar reverse with the inscription, <i>Gaudium Augusti nostri</i>, "The happiness of our Augustus," occurs on a triple solidus or ternio (Cohen, 159) struck by Constantine the Great at the mint of Constantinople, a medallion which is dated by Maurice in the same period as the medallion under discussion (<i>Num. Constan.</i>, Vol. II, p. 495, No. vii). The decennial festival at which vows for the success of the Emperor in the future were offered, and at which vows undertaken in the past were celebrated, was made the occasion of a special</p>	<p>Vota medal- lion, ternio, of Constan- tine II</p>
A N D M O N O G R A P H S	

commemorative issue in the coinage. These thanksgiving or festival anniversaries in the earlier period¹ — *i.e.* up to the reign of Commodus — were marked by the type, a veiled figure of the Emperor at an altar, and accompanied by the inscription, *Vota suscepta decennalia*, or *quinquennalia*, etc. Later, the usual types were an inscription within a wreath, or an inscription on a shield placed on a cippus or held by a Victory, or supported by two Victories.

During the earlier Empire, mention of the Vota celebrations supplies a valuable indication of the date of issue, but during the later Empire it became customary to anticipate the normal arrival of such festivals. The periods were sometimes celebrated a year in advance and sometimes after a definite cycle had elapsed and been commemorated on the coinage, the ensuing period was at once placed upon the coinage. Thus, when Constantine had completed his Vicennial anniversary, he struck coins with the inscription VOT XXX.² But each actual

celebration of the anniversary of the reign was commemorated by games, by a special issue of coins, and by the issue of medallions such as the one here represented, probably for distribution.

Flavius Claudius Junius Constantinus, as Constantine II or Junior was officially called, was born at Arles in the year 316 and was elevated to the rank of Caesar in 317. He would, therefore, have been a youth of barely ten years of age when the present medallion was struck. The features of Constantine Junior are here depicted as youthful in accordance with his age. Constantine II shared the rank of Caesar with Crispus, his half-brother, who was sixteen years his senior, and with Licinius the younger, son of Licinius who was at first Constantine the Great's co-ruler in the Empire. After the death of Constantine the Great in 337, Constantine II was proclaimed Augustus, but perished three years later in 340 at the age of 24 in the contest with his younger brother Constans I over his share in their father's Empire. Hence, the dates here

Vota medal-
lion, binio,
of Constan-
tine II

given, 317-337, cover the period during which Constantine was Caesar or prince in the royal household.

Another gold piece commemorating the Decennial anniversary of Constantine Junior as Caesar, is the double solidus or binio



I

(Fig. 1) with the diademed head of Constantine Junior raised in the same attitude as that seen on our medallion of Constantine the Great. The inscription around the head reads: CONSTANTINVS NOB. C. — *Constantinus nob(ilis) C(aesar)*. The reverse bears simply the inscription in four lines as follows: VOTIS. X. CAES.N. S.M.TS. — *Votis decennialibus Caesaris) n(ostris) (solutis), s(acra) m(oneta) T(he)s(salonicas)*, "The Decennial vows of our Caesar (having been paid), Sacred

NUMISMATIC NOTES

mint of Thessalonica." This binio is, also, of the mint of Thessalonica and is of the highest interest since it is a coin which can be approximately dated showing the interesting type of the uplifted head seen on the larger medallion, Pl. I, which is later in date. Its weight, 8.75 grams, shows that it is the double of a solidus of about 4.45 grams. It is published by J. Maurice (*Num. Constan.*, Vol. II, Pl. xiv, 13) and is now in Berlin. The upward pose of the head with the eyes uplifted is a type created by Constantine the Great and dates back to the Council of Nicaea, which was in session from June 19 to August 25, 325. Eusebius in his *Life of Constantine the Great* (*Vita Const.*, Book III, Ch. 6) tells us that "the most distinguished of God's Ministers from all the churches which abounded in Europe, Lybia (*i.e.* Africa), and Asia were here assembled." Eusebius, himself, was probably the chief ranking bishop of the Council which was attended in person by the Emperor. Constantine's entry into the assembly of bishops is vividly de-

Pose of head,
type created
at Nicaea

scribed by Eusebius, his admirer and panegyrist. The majestic yet modest bearing and gorgeous jewels and purple cloak, form an interesting pen picture to supplement the accounts of his personal appearance which have come down to us from various authorities.

In Book IV, Ch. 15, of the Life, we read the following explanations of the coin types with uplifted head, "How deeply his soul was impressed by the power of Divine Faith may be understood from the circumstance that he directed that his portrait should be so represented on the gold coins as to appear to be looking upwards in an attitude of prayer intent upon God."

In nummis aureis ita imaginem suam exprimi curavit ut videretur sursum intueri precantis more in deum intentus, or in the original Greek :

ὡς ἐν τοῖς χρυσοῖς νομίσμασι τὴν αὐτοῦ αὐτὸς εἰκόνα ὥδε γράφεσθαι διετύπον ὡς ἀνωβλέπειν δοκεῖν ἀνατεταμένος πρὸς θεόν, τρόπον εὐχομένον.

Eusebius adds that this money became current throughout the Roman world, and that Constantine's full length portrait was placed over the entrance gates of palaces in some cities, the eyes uplifted to Heaven, and the hands outspread as if in prayer.

The old view was that Constantine the Great was imitating Alexander the Great in this pose of the head. This attitude of Alexander the Great is not found upon coins issued by Alexander since, of course, we have no real portrait of the Macedonian hero on his own coins, although his successor, Lysimachus, struck coins with Alexander's portrait under the guise of an idealized head of Zeus Ammon. But the biographers of Alexander the Great and certain marble busts which have come down to us indicate that Alexander either affected an individual pose of the head, or carried his head rather differently from the ordinary mortal because of some physical peculiarity. Furthermore, Plutarch who had seen portraits of Alexander by Lysippus, the great sculptor of the period, states

in his Life of Alexander, Ch. iv, that his head was inclined somewhat to the left side and looked upwards. The famous Tarsus medallion with the bare head of Alexander and later coins of Macedonia during the Roman period show the head of Alexander with the chin raised and the eyes somewhat uplifted, but there can be no question, in view of the explicit statement of Eusebius, that the correct explanation of this characteristic on certain Constantinian medallions is that this posture indicates the attitude of prayer. An Alexander cult was indeed inaugurated after the death of the hero, and Alexander's portrait was worn as an amulet until late in the Fourth Century A.D. Nevertheless, Eusebius' explanation is far more plausible when we consider that the same attitude of the head is found on commemorative coins of the youthful Crispus and of the young Constantine, who would be far more fittingly represented in a religious attitude, lifting their countenances in gratitude to God for the successful conclusion of the ten-year period as

Caesars. To compare either the young Caesars or Constantine the Great with Alexander is quite inappropriate, and if we could imagine that Constantine himself had a *flair* for Alexander, it is absurd to suppose that the imitation of this peculiar pose of the head would have been countenanced by Constantine also on the coins



of the Caesars. Another objection is that the uplifted pose begins after the Council of Nicaea in 325 (see the binio, Fig. 1, and the solidus of the Thessalonica mint here shown, Fig. 2), and is found on more conspicuous medallions of ten years later (see the large medallion on Pl. I, and the solidus of the mint of Nicomedia here shown, Fig. 3), a long time after the conversion of Constantine to Christianity, when the imitation of a

pagan hero would hardly have been very fitting.

We learn from the life of Constantine the Great, that his Vicennial anniversary was celebrated first at Nicomedia, on March 1, 325 (Eusebius, *Vita Constantini*, Book I, 1) and then, according to the usual custom, was renewed in July in the



year 326 at Rome, Constantine being present at both celebrations. The year 325, however, was one year in advance of the actual accomplishment of his Vicennalia, since the date from which these periodical celebrations were reckoned was the elevation to the rank of Caesar. Thus, for Constantine the Great, the Vota would be reckoned from the year 306, for Crispus and Constantine II, from the year 317. The Decennial Vota of Constantine

Junior (and Crispus) would, therefore, fall normally in the year 327, but fêtes took place in anticipation of the celebration, and Constantine ordered the Decennalia of the Caesars celebrated throughout the Empire one year in advance of their accomplishment. Thus, the renewed celebration of his own Vicennalia in 326 fell in the same year as the anticipated Decennalia of the Caesars. In this year, 326, therefore, after the meeting of the Nicaean Council in 325, the type of the uplifted head in the attitude of prayer appears on the medallions of Constantine II, as well as on those of Constantine the Great (see below, Fig. 6).

The same type of head occurs on the regular currency of Crispus (always head to the right and wearing a diadem), no inscription on the obverse, and the figure of Victory bearing a wreath in the right hand and palm branch in the left (Cohen, 59, solidus). The inscription on the reverse reads *Crispus Caesar*. This coin, on account of the medallic-like character of its obverse, and the inscription being

Nicaean type
on coins of
Crispus

transferred from its usual position on the obverse to the reverse, would appear to have been issued to commemorate some particular event, and the similarity of its obverse type to the obverse type of Constantine Junior's Decennial medallion (Fig. 1) suggests that the occasion for its issue was likewise the Decennial anniversary of Crispus, namely, the year 326 in which, as we have seen, the Imperial anniversaries of the young Caesars were celebrated one year in advance.

Date of
Crispus'
death

Crispus was executed some time in 326, after having been imprisoned in the fortress of Pola in Istria, as the result of false accusations brought against him by his stepmother, Fausta. His tragic history, which is well known, recalls the story of the Euripidean tragedy, *Hippolytus*, preserved for us, also, in Racine's *Phèdre*.

There has been considerable uncertainty in regard to the precise month when Constantine ordered the death of Crispus. The editors of the writings of Eusebius, the *Church History*, *Life of Constantine*

the Great, and Oration in praise of Constantine (*Library of Nicene and Post-Nicene Fathers of the Christian Church*, P. Scheff and H. Wace, Vol. I, *Prolegomena*, p. 419) believe that Crispus was still alive on March 1, 326, when the Decennalia were celebrated. They refer to Eckhel, Vol. 8, pp. 101-102, where a coin of Crispus (Cohen, 3) with the reverse inscription *Beata Tranquillitas*, and with *Votis xx* written on an altar is discussed. Now Eckhel explains that the *Vota xx*, if referring to the Vicennial anniversary of Crispus, could of course only be placed on the coins after his *Vota x*, Decennial anniversary in 326 had been accomplished, but that the mention of his second Consulship which occurs in the obverse inscription reading Crispus N. C. Cos. II, places the coin definitely in the year 321 which is, also, the dating given by Maurice (*Num. Constan.* II, p. 113). The *Vota xx* of this piece must hence refer to the Vicennalia of the Augusti, Constantine the Great and Licinius, as *suscepta*, 'undertaken,' after the *Vota x* had been *soluta*, 'paid,' in the

year 316. The Votis xx of this reverse occupies a subordinate place in the type and merely refers to the decade generally, the obverse inscription obviating any ambiguity as to the date. This coin then does not establish the survival of Crispus after the anniversaries of March, 326, the Decennalia of Crispus and Constantine Junior.

Maurice, however, quotes Zosimus, *Historiae II*, 29, to confirm the fact that Constantine ordered the death of Crispus during his stay in Rome. As he arrived there on July 21 and did not leave until September, Maurice concludes that the death of Crispus took place in July or August, 326. This view is opposed to that of O. Seeck who points out that the absence of any Vota x medallions of Crispus corresponding to the five medallions³ of Constantine II tends to prove that Crispus was executed before March 1. But these Vota x medallions of the Caesars were probably not struck until July, 326, during the visit of Constantine to Rome and the celebration of his own Vicen-

nalía, rather than on March 1 of this year (Maurice, *Num. Constan.* I, p. 468). It would seem more probable, in any event, to suppose that the gold pieces of the type described (Cohen, 59) were subsequent to the issue of Constantine the Great with the same type of head (see below Fig. 6). These latter coins, as we shall see, are probably to be regarded as struck for the



4

commemoration of the celebration of 326.⁴ The type was perpetuated on the coins of the succeeding Caesars, Dalmatius, in silver (Cohen, 3); Constantius II, in gold (Cohen, 75), and Constans I, in silver (Cohen, 2, mint of Alexandria, and Fig. 4, mint of Cyzicus). Maurice (Vol. II, p. 408, Note 1) states that this type of coin with the tilted head occurs on the coins of all the emperors after Constantine

Tricennial
medallion of
Constantine

the Great at all important imperial anniversaries down to the time of Julian the Apostate. He says that this attitude is found on coins of Julian as Caesar but that when he was made Augustus and declared himself the adversary of Christianity, the type disappears. If this is true, it would seem to confirm what has preceded in establishing the Christian meaning of the type.

The large medallion of Constantine the Great (Pl. I) can be very definitely dated from another gold issue having a similar reverse type from the mint of Siscia (Cohen, 237). The inscription of the smaller piece which is equal to $1\frac{1}{2}$ solidi, reads *Gloria Constantini Aug.*, and Constantine is dragging by the hair another barbarian captive with his right hand, instead of carrying the spear, as on the larger medallion. In other respects, however, the reverse types are similar, the mint is identical, and, what is most important, the obverse type is of the same medallic character, that is, uplifted and diademed head of the Emperor to the

NUMISMATIC NOTES

right, and lacks the inscription. This piece is classified by Maurice (*Num. Const.* II., p. 366, Pl. x, 24) in the 13th issue of the coinage of this mint, struck between September 18, 335, and May 22, 337, the date of the death of Constantine the Great. Now the Tricennial anniversary of Constantine the Great was celebrated twice, as usual, on July 25 in the years 335 and 336. The second celebration would also have been the 20th anniversary of Constantine Junior, that is to say, the anticipatory celebration of 336. It was, therefore, an extraordinary occasion, and, as such, called for the issue of very special coins to commemorate the great event. The large medallion and also the small one from the mint of Siscia are probably to be assigned to 336, the year of the second celebration, as this appears to be the more important event, since Eusebius refers to it in his *Vita Constantini* iv, 49.

The obverse type and reverse legend of our medallion refer only to Constantine the Elder. Gold medallions of smaller denomination are known referring to the

Medallic
aureus of
Constantine

Tricennial anniversary of Constantine the Great, namely, the medallion (Fig. 5) bearing the diademed head to the right with the obverse inscription *CONSTANTINVS MAX. AVG.*, *Constantinus Maximus Augustus*, and the reverse type simply *VOTIS XXX*, *Votis tricennalibus* (*solutis*), within a wreath. The exergual



letters, T S. E., *T(he)s(salonicae) quinta*, indicate the fifth *officina*, mint-shop or section of the mint of Thessalonica (Maurice, Vol. II, p. 478, No. VIII). This example from the collection of Mr. E. T. Newell (formerly Weber Collection, Cat. Pl. xlv, 2599) is 23 mm. in diameter but weighs only 5.32 grams. It is not, therefore, a double solidus as its diameter suggests, but an aureus, struck on the basis

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of sixty coins to the gold pound. This was the usual current gold piece of the time of Diocletian which was supplanted in 309 by the solidus, first struck in this year by Constantine the Great, on the basis of seventy-two coins to the pound of gold. The aureus still continued to be issued occasionally as a special commemorative piece or medallion. The features of the idealized head on this medallion are very youthful, and it has been suggested that the head may be that of Constantine Junior. One may object that the inscription '*Constantinus Maximus Augustus*' could not refer to the younger Constantine, but Constantine II was proclaimed Maximus in the month of September, 337, and although the medallion commemorates the Tricennalia of Constantine the Great, celebrated in 335 and 336, still it is possible that commemorative medallions of this type were issued throughout the next year, and that the head and the inscription on the particular piece before us refers to Constantine Junior. The idealization of the heads, however, on these medallic

pieces renders it an impossible matter to decide with certainty from the portrait alone, but in view of the inscriptions, the head is probably an idealized head of Constantine the Great with juvenile aspect.

The diadem of gold and precious stones which adorns the head of Constantine the Great on the large medallion (Pl. I), and the similar diadem on the medallions shown in Figs. 3 and 5, (O. Seeck, *Zeit., f. Num.*, 1898, p. 28) is not found on coins with the head of Licinius or of Licinius Junior. Hence it may be assumed that it was not adopted until after 324. It occurs contemporaneously with the uplifted head. A few decades later it became the symbol which distinguished the Augustus from the Caesar.

The great anniversaries of 335, 336, 337 were essentially a Christian festival. Eusebius, in his official Panegyric, *De Laudibus Constantini*, pronounced in 335, represents them as the triumph of Christianity. Religious ceremonies were celebrated in the churches. The Emperor

received the bishops with great pomp in his palace at Constantinople. The church in Jerusalem was consecrated in 335. Embassies from various foreign countries, and notably from India, came to pay their respects to the Emperor.

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Die aufwärtssehenden Bildnisse Constantin des Grossen und seiner Söhne, *ibid.*, 1880, pp. 74-107.

The medallion is not mentioned in J. Maurice's *Numismatique Constantinienne*, nor in O. Seeck's work on the medallions of Constantine and his family.

For No. 2

MAURICE, JULES. *Numismatique Constantinienne*, Vol. II, p. 466, No. xv.

SEECK, O. *Zu den Festmünzen Constantins und seiner Familie*, *Zeit. f. Num.* 1898, p. 25 f.

CONSTANTINE THE GREAT, 306-337 A.D.

3. *Obv.* D. N. CONSTANTINVS MAX AVG. —
D(ominus) n(oster) Constantinus Max-

A N D M O N O G R A P H S

(*imus*) *Aug(ustus)*, "Our Lord, Constantine, Maximus, Augustus." Bust of Constantine the Great to the right, wearing a laurel wreath, and clad in the cuirass and military cloak: border of dots.

Rev. *EQVIS ROMANVS*—*Equis* (for *eques*) *Romanus*, "The Roman knight." The Emperor bareheaded on horseback to the right, right hand upraised, left hand holding the bridle. In the exergue, S. M. N. — *S(acra) m(oneta) N(icomediae)*: border of dots.

Gold medallion. $1\frac{1}{2}$ solidi. 17 mm. 6.77 gr. Dr. de Yoanna Collection, Cat. Egger XXXIX, 1912, No. 1390 (this specimen). Plate III.

Cat. Hirsch XXXIII, 1913, No. 1467, 6.74 gr.; Kubitschek, *Ausgewählte Römische Medaillons*, No. 236, 6.55 gr.; Cohen, *Médailles Impériales*, VII, 139, 6.66 gr., (Paris); Gneccchi, *I Medaglioni Romani*, 6.73 gr. (Berlin), Pl. 6.12. Compare also, Gneccchi, No. 8, Cohen, 138, with inscription *Eques Romanus*. J. Maurice, *Num. Constan.* Vol. III, p. 58, No. xii.

This $1\frac{1}{2}$ solidus was struck in Nicomedia, and the spelling on the reverse — *equis* for *eques* — is an orthographical error



probably due to the fact that the die-cutter in Nicomedia was a Greek who was not perfectly familiar with Latin. Gnecci's specimen, p. 15, No. 8 (Cohen, 138) shows the correct spelling on a medallion also from Nicomedia. The examples with the spelling '*equis*' are the more numerous. The obverse shows a fine portrait of Constantine the Great, more realistic than that on the larger medallions with uplifted head. The reverse type is of special interest as it represents Constantine as a member, or rather leader, of the Roman Equestrian Order.

'Eques'
medallion of
Constantine

This medallion may be more easily understood if we consider in connection with it the large gold medallions struck by Constantine, with the reverse type representing him standing, in senatorial dress, carrying in his right hand the globe, and in his left hand an inverted sceptre with the inscription SENATVS — *Senatus*, "The Senate"; in the exergue, S. M. R., *S(acra) m(oneta) R(omae)* "Sacred mint of Rome" (Fig. 6, Gnecci, Pl. 7, 17). This reverse occurs with gold medallions of two

'Senatus'
medallion

denominations; first, the medallion equivalent to $4\frac{1}{2}$ solidi here shown from the Berlin Museum, 35 mm. in diameter, weighing 19.85 grs. from the mint of Rome, having as an obverse type the uplifted, diademed head of the Emperor; second, a medallion whose obverse shows the bust of Constantine the Great in rich senatorial costume, bearing the sceptre surmounted by an eagle in his right hand and the globe in his left, in the British Museum, 33 mm. in diameter and weighing 13.23 gr., equivalent therefore to 3 solidi and hence, a ternio, from the mint of Thessalonica (Cohen, *Méd. Imp.* 502; Maurice, *Num. Const.*, Vol. II., Pl. xiv, 14). These two medallions with the *Senatus* reverse, and the smaller pieces with the *Equis Romanus* reverse form a series of graduated weights of $4\frac{1}{2}$, 3, and $1\frac{1}{2}$ solidi, the unit being the piece of $1\frac{1}{2}$ solidi which we are discussing and the multiples increasing each by $1\frac{1}{2}$ solidi. These coins are quite obviously connected by their weights and their types. Von Sallet supposed that they were memorial coins

struck to commemorate the founding of Constantinople, and that they refer to the institution of the two Roman social orders in the new metropolis. But, it has been objected, we know already of a series of foundation medallions, all of which were struck in Constantinople itself, whereas none of the examples with the senatorial and equestrian types is known to have been issued in Constantinople. Also, we have no evidence of the existence of the Equestrian Order in Constantinople. O. Seeck believes that the reverses refer to those classes to which the medallions were designed to be distributed. The knights would receive the $1\frac{1}{2}$ gold medallion as a souvenir; the senators, and those of their rank, such as the consuls, the 3 and $4\frac{1}{2}$ pieces. He refers to the letters of Symmachus, to the writings of Ammianus Marcellinus, to support his theory that the Emperor gave gifts to important personages on the occasion of certain fêtes. His theory in regard to the distribution of the medallions will be discussed when we have finished describing all the medallions.

Date of
'eques'
medallion

The date at which our medallion No. 3 was issued is not to be absolutely determined by any indication on the group of three coins which have just been described, but Seeck compares this group with another series of three gold medallions. Two of this second group are here represented, namely, our No. 2, the triple solidus of Constantine Junior, Pl. II, and the double solidus of this same prince (Fig. 1). A third coin belonging here is the binio in the British Museum bearing the bust of Constantine Junior and referring, like the two others, to his Decennial anniversary. The coins of this second group were issued at the mints of Thessalonica and Nicomedia, and were undoubtedly intended as complimentary gifts on the occasion of the Imperial anniversary as we have seen. They all relate to Constantine Junior and range in weight from 3 to 2 solidi, the unit (here *assumed*), being the solidus. Seeck points out the resemblance in various points between the two series, and also the resemblance in the profiles on the medallions

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struck at Thessalonica, namely, the triple solidus of Constantine the Great, which is the second piece of the senatorial-equestrian group, and the double solidus of Constantine Junior, which is the second piece of the second group (Fig. 1) and concludes that all these pieces were struck probably about the time of the Decennial celebration of Constantine Junior.

The mints represented on the medallions of these two groups are Rome, Thessalonica, and Nicomedia. If these pieces belong together in point of time, it may be inferred that they belong to the period after Nicomedia had been joined to the Empire of Constantine by the defeat of Licinius in 324, and before the foundation of Constantinople in 330, since this mint is unrepresented. The latter is a negative course of argument, but the mints that do occur fit in very well with the theory constructed by Seeck. Constantine, as we know, journeyed to Rome in 326 and there repeated the celebration of the Vicennalia which he had already held in Nicomedia the year before, but this time in the centre

of the Empire. Now Rome was naturally the place where senators and knights lived in the greatest number — one of the *Senatus* medallions (Fig. 6) was struck there — and if the medallions were designed for distribution in the capital, they may have been struck in Nicomedia and Thessalonica and brought to Rome by the Emperor. The theory is plausible and forms an interesting explanation of the senatorial and equestrian types. Our *Equis Romanus* medallion struck in Nicomedia, in Bithynia, may therefore have been distributed by Constantine in Rome. Yet there were senators and knights in the provinces, and the issues of the provincial mints may just as well have been struck for local distribution. Summing up all the bits of evidence available, the year 326 seems a most likely date for the striking of the senatorial-equestrian medallions of Constantine the Great.

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CONSTANTINE THE GREAT, 306-337 A.D.

4. *Obv.* IMP. CONSTANTINVS P. F. AVG. — *Imp(erator) Constantinus p(ius) f(elix) Aug(ustus)*, "The Emperor Constantine, reverent, fortunate, Augustus." Bust of the Emperor, Constantine the Great, to the right, with radiate diadem, cuirass and military cloak: border of dots.

Rev. AVGG. GLORIA — *Aug(ustorum) duorum gloria*, "The glory of the two Emperors." A fortified gateway of the city of Trèves with one entrance; above the closed entrance to the gateway is a statue probably representing Constantine, standing to the left in military dress and cloak, with right hand up-raised, holding scepter in his left; in the distance one sees the walls of the city and the tops of three towers or gates. On either side of the gateway are seated

Binio, with
walls of
Trèves

A N D M O N O G R A P H S

two captives to right and to left in an attitude of distress. The figure on the right wears a Phrygian cap. Beaded lines from their necks seem to represent chains. Below the gateway is the Moselle River represented by wavy lines, which is crossed by a bridge of which two arches are visible. In the exergue, P. TRE — *P(rima) Tre(virorum)*, "First mint-shop (*officina*) of Trèves": border of dots.

Gold medallion. Binio or double solidus. 17 mm. 8.85 gr. Berlin.

Plate IV.

Cat. Hirsch XII, Pl. xiv, 670 (this specimen); Cohen, *Méd. Impér.* Vol. VII; 236; Gneecchi, *Med. Rom.* Plate 7 (2 and 3).

This most interesting piece in the Berlin Museum Collection weighs somewhat less than the other two known specimens, namely, the Paris example, 8.95 gr., and the example in Sir Arthur Evans' Collection, weighing 8.97 gr., published in the *Numismatic Chronicle*, 1910, pp. 103-106.

Maurice assigns this coin to the eighth issue of the mint of Trèves or the period between September, 326, after the deaths

of Crispus and Fausta, wife of Constantine the Great, and May 11, 330, the date of the solemn inauguration of Constantinople. Trèves was at this time still the principal city of Gaul. During the years 327-329, Constantine was occupied in reorganizing the frontiers of the Empire along the Danube and the Rhine. He stayed chiefly in the provinces bordering on the Danube, but he went to Trèves at the end of 328 and the beginning of 329, and indications drawn from the Theodosian Code allow us to infer a stay of some length at Trèves during which the striking of this medallion may have been ordered.

The formula AUGG. in the plural is remarkable since this medallion, according to Maurice, belongs to the issue here described, as is evidenced by the letters P. TRE. in the exergue, whereas for several years, two years, anyway, there had been only one Augustus, namely Constantine, in the Empire. Licinius, the other Augustus, had been executed in 324, hence, Maurice concludes, the formula AUGG. GLORIA, *Augustorum duorum gloria*, was

The formula
AUGG.

The date

probably a stereotyped formula preserved by custom.

Constantine resided at Trèves for several months during the years 306, 307, 310-316, 328-329, and 331. Were it not for Maurice's dating based upon his study of the whole Constantinian coinage at all the mints of the Empire, one might have selected the year 310 when Constantine was at Trèves and celebrated his Quinquennial anniversary (anticipated). In this year was delivered the oration of Eumenius, the official panegyrist, "in an important city on a large river which empties into the Rhine above Cologne," that is to say, Trèves. From this oration we learn that Constantine had restored the city walls throughout. The exergual formula, however, P. TRE. — *Prima Trevirorum*, shows that this year is impossible because Trèves had two ateliers of the mint designated *Prima* and *Secunda* only after the year 313. The period 313-316, when there were two Augusti, would also seem more suitable when we consider the reverse inscription, *Augg. gloria*. But this

again does not square with Maurice's assignment to the period, 326-330, of the particular exergual formula used, P. TRE. Therefore, the contradiction in the reverse inscription is explained (Maurice, Vol. 2, p. 412) as due to a certain notion of the plurality of the Augusti not corresponding to reality, and to a certain administrative routine.

In spite of the weight of evidence, one is inclined nevertheless stubbornly to doubt the assignment of this medallion to the eighth issue of the mint of Trèves, comprised within the limits, Sept. 326, *i.e.*, after the deaths of Crispus and Fausta, and May 11, 330, the date of the inauguration of Constantinople. If it were only a question of minor issues, such as bronze or silver, one might accept Maurice's thesis. But this gold medallion represents a special issue for which a special die had to be engraved, and, as such, its legends ought to correspond to historical fact. Now during 326-330 Constantine was the *sole* Augustus, but the inscription *Gloria Augg.* indicates *two* Augusti, and

it seems an impossibility that such a formula would have been used after the death of Licinius in 324, on a conspicuous commemorative medallion struck by Constantine in the most important city in his realm. Furthermore, although Maurice, in defence of his thesis that the formulas *Providentiae Augg.* and *Gloria Augg.* on coins which he assigns to this period were preserved partly by custom and partly from a religious sense attaching to the idea of the plural personality of the Augustus, he is forced to admit that the mint of Sirmium which was under Constantine's direct surveillance, and a place where he often resided, never employed the plural form *Augg.* after the death of Licinius. The period after 313 and before 324 seems in every way the more probable date for the issue of this Trèves piece.

The radiate
head

The obverse type shows Constantine with the radiate head. This type which embodies a pagan symbolism and which goes back to the earliest days of the Empire, is but rarely found on Constantine's coins.

The symbolism of the radiate head first occurs on the coins of the Seleucid kings of Syria. The kings of this dynasty and the Ptolemaic rulers of Egypt imitated their predecessor, Alexander the Great, to whose kingdom they succeeded, not only in placing their portraits upon the coins but, also, in assuming symbols of divinity. The first king of the Seleucid line who emphasized openly his claim to divinity is Antiochus IV Epiphanes, and accordingly on his coins, chiefly the bronze ones, he is represented with a crown of spikes similar to that worn by the Sun-god Helios or Apollo.

Thus, the king was assimilated to the Sun-god, and the sun's rays represent a deification. This symbol of deification was transmitted from the Seleucid and Ptolemaic monarchies to the Roman Caesars, but the radiate head on Roman coins is at first found only on the heads of the deified Emperor after his death. For example, the deified Augustus occurs with the radiate head on the coinage of his successors, Tiberius and Caligula. So,

also, the head of the Emperor Claudius who was the third Roman (after Julius Caesar and Augustus) to be declared a *divus* by the Senate appears with the radiate head after his death. Subsequently, however, under Nero the Emperor is represented as radiate in his own lifetime. This is in accord with what we know of Nero's attitude on the subject, for he is said to have demanded divine honors and a temple for his worship. (Tacitus, *Annales*, xv, 74.) Furthermore, there is an aureus (Cohen, 44) bearing the inscription *Augustus Germanicus* which, on the reverse represents Nero standing and wearing a radiate crown. This coin which is to be explained in connection with the aureus of the *Augustus Augusta* type representing Nero and Messalina in a sort of disguised deification, shows again Nero's desire to be registered as a god during his lifetime. After Nero, the radiate head becomes a commonplace, and is used in the coinage in a technical way to distinguish certain denominations in bronze. Nero himself, be it noted, never went so

far as to introduce the 'crown of divinity' in his gold or silver, but introduced it modestly in the bronze. That it had a real meaning, however, is sufficiently proved by the fact that Nero employed two other symbols, the aegis and the globe, as imperial symbols of divinity.

It may seem surprising that Constantine should allow his portrait with the radiate head to be placed upon his coinage after his own conversion to Christianity which took place in 312. But perhaps the symbol had long ceased to have any special meaning. Yet it is somewhat remarkable because the radiate head occurs but seldom on his coins and medallions. Two instances are the gold binios of the mint of Nicomedia showing the radiate bust of Constantine to the left (Cohen, Vol. VII, no. 391, p. 321). A third example is a gold binio (Cohen, 683) with the radiate bust to the right, of the mint of Trèves. All three pieces are to be dated after 324, a dozen years, therefore, after the conversion to Christianity. There must be some special reason why this pagan type is

The Sun-god
as hereditary
deity of Con-
stantine

perpetuated so long on the coinage. And we find an explanation if we look more closely into the accounts of various authors who describe the life of Constantine. The orator, Eumenius, who pronounced the official panegyric addressed to Constantine at Trèves in July, 310, described Constantine's descent from Claudius II by Constantius Chlorus, and notes Constantine's cult of the Sun-god who was the hereditary deity of the second Flavian dynasty. The coins showing various types relating to the Sun-god, namely, the bust of the sun, the Sun-god in a chariot, and the inscription *Sol Invictus* begin about 309. It is due to this tradition of the solar origin of the dynasty, that Constantine allowed his head to be represented as radiate long after his conversion. When the city of Constantinople was formally inaugurated as the capital of the Empire in 330, a gigantic statue of Apollo Helios, with features assimilated to those of Constantine, was erected in the Forum of the city on a column of porphyry which is still standing to-day.

This statue represented the Emperor as a Solar god. It may have been, as Maurice thinks, planned by the pagan officials of the Senate who presided in general over the organization of the new capital. Nevertheless, the Emperor did not forbid its erection although he intended to make Constantinople a Christian city and would not allow the performance of any ceremonies connected with the pagan cults. Art types, however, persist long after the practice of the cults originally connected with them.

The Roman city of Trèves (*Augusta Trevirorum*) goes back to the old Gallic tribe of the Treviri, whose chief town was besieged by Julius Caesar. It lay on the right bank of the Moselle about 90 miles from Coblenz where the Moselle joins the Rhine. Whether it was surrounded by walls in the time of Julius Caesar is not known, but it was fortified certainly by Augustus in 15 B.C., and a colony was established there under Claudius. In 69 A.D. the walls of Trèves are mentioned by Tacitus (*Historiae* IV, Ch. 62). In the

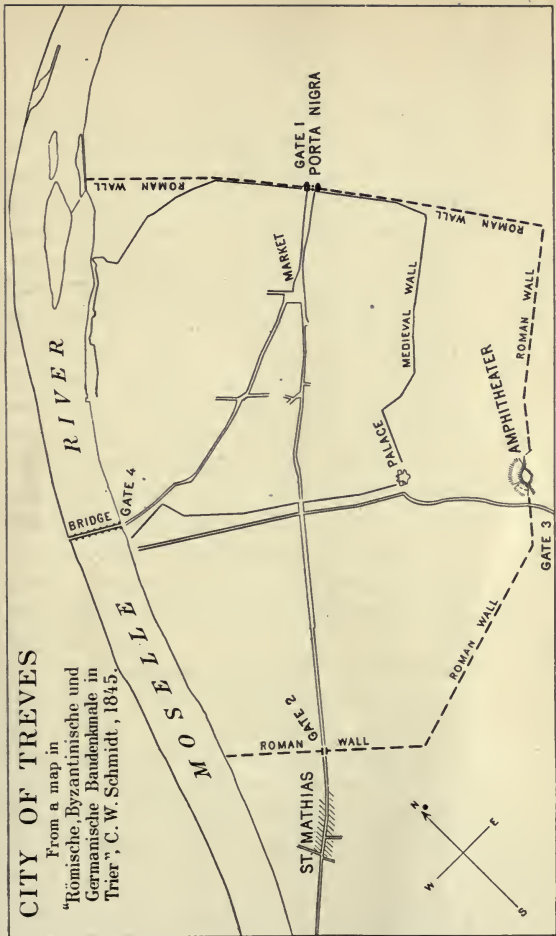
Walls of
Trèves

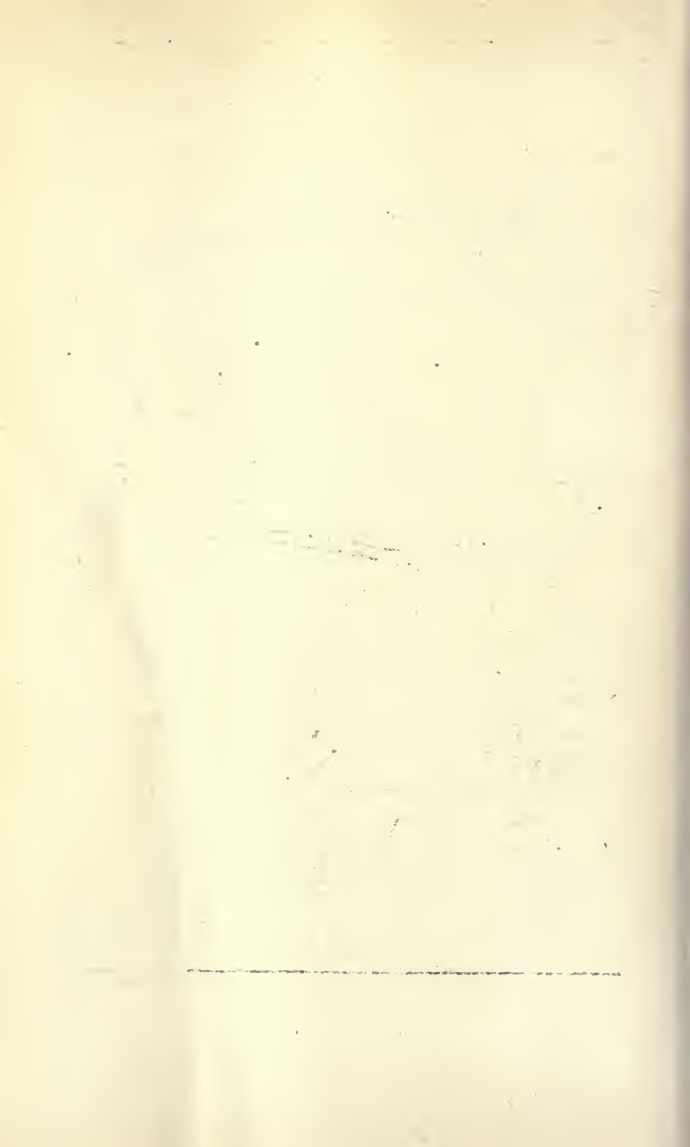
second half of the third century, the town was surrounded by strong walls and the city became the residence of the Roman emperors, and a vantage point from which to wage war against the Germanic tribes. Diocletian, at the time of the re-organization of the Empire, made Trèves the capital not only of Belgica Prima but of the whole of Gaul. For a century, from the time of Maximianus to Maximus, 286 to 388, it was the royal residence for all the Emperors except Julian, who lived in Paris. It was the administrative centre from which Gaul, Britain, and Spain were ruled and was called the "Second Rome" and the "Rome beyond the Alps."

There must necessarily have been many enlargements of the encircling walls from time to time, but there is now no trace of the early walls and those now surviving belong to the city at its greatest extent. The accompanying ground plan of the city of Trèves, adapted from the copper plate in Schmidt's work on Trèves (see Special References), shows the lines of the old Roman wall. The ancient city

CITY OF TREVES

From a map in
"Römische, Byzantinische und
Germanische Baudenkmale in
Trier", C. W. Schmidt, 1845.





extended much farther to the east and southwest than at the present time. This is shown clearly on the plan on which the mediæval walls with the encircling boulevards are shown. On the northeast side the modern city wall is practically identical with the Roman wall. The wall which bounds the city on the side opposite the river runs close to the ancient amphitheatre indicated on the plan and meets at a sharp angle the southwest wall which runs about parallel to the northeast wall through the suburb of St. Mathias and reaching to the river. The area enclosed within these fortifications was more than double that of the modern city and the ancient population has been estimated as more than double the population of the city in 1905.

There has been practically no published discussion concerning the gateway represented on the Constantinian medallion (Pl. IV) in numismatic and architectural works.⁵ Donaldson does not mention the medallion in his *Architectura Numismatica*, although the Paris example was

The Porta
Nigra

illustrated in Cohen's *Médailles Impériales* VII, p. 255). Sir Arthur Evans, in his article in the *Numismatic Chronicle*, 1910, does not identify the gate with any particular gateway of the city. In a passing reference, M. Babelon in the *Traité des Monnaies Grecq. et Rom.*, Vol. I¹, p. 52, identifies the gate on the medallion with the Porta Alba.⁶

Upon first investigation after a comparison of the imposing remains of the gateway known as the Porta Nigra, one of the finest Roman gateways still standing, with the representation on the medallion, the natural conclusion would be that this gateway, which it would seem must have been the principal *porta* of the city, is the one figured on the coin. This has probably been the belief of most archaeologists familiar with the Porta Nigra and the medallion. The fact that there appear to be four towers instead of two is in no wise disturbing, although the Porta Nigra had but two, for coins seldom bear representations of archæological objects which are faithful in detail. Furthermore, the

representation is of the whole walled enclosure with numerous towers, and the two outer towers on the medallion probably represent single towers situated at intervals on the encircling wall (of whose existence the remains to-day bear evidence) and do not belong to the gate proper. .

But a closer study of the walls and plan of the city has revealed the fact that the Porta Nigra cannot possibly be the gateway represented on the binio. In the first place, the Moselle River does not flow closely enough to the city walls in the vicinity of the Porta Nigra for it to form naturally an integral part of a picture of the city as seen from this gateway. In the second place, there is the detail of the bridge clearly depicted with its arches across the river; and, as the extant remains of this bridge and the results of Schmidt's detailed study of the walls show, there must have been an important *porta* at the bridge-head in the west wall. (Plan of Trèves, Gate 4.) Finally, the situation of the ruins now extant, the Emperor's palace, the amphitheatre, etc.

The four
gates of
Trèves

(Plan of Trèves), indicates clearly that not only was there an important gate at the bridge-head, but that this was the principal entrance to the city although, unfortunately, all traces of it are now lost. But most happily in pursuing the inquiry further, the writer was rewarded by discovering that the late compilation, known as the *Gesta Trevirorum* (about 1132), contains a full, albeit somewhat florid, description of all the gateways of Trèves and confirms fully the above deductions, by describing the bridge gate as the most elaborate structure of all.

There were four gateways leading into the city of Augusta Trevirorum. The best known of these is the only one now extant, the so-called Porta Nigra, which was also known as the Porta Romana and the Porta Martis, and lies about the centre of the northeast wall. (See Plan of Trèves, Gate 1.) A second gate was situated at the opposite end of the long street to which the Porta Nigra formed one terminus. (Gate 2.) While a third gate probably was situated about the

N U M I S M A T I C N O T E S

middle of the east wall, and from all accounts was formed from the openings of the amphitheatre itself. (Gate 3.) A fourth gate is known to have existed at the head of the bridge across the Moselle and formed the terminus to a long street which led diagonally into the main artery which connected the Porta Nigra (Gate 1) and the southernmost gate (Gate 2) and joined it at the market place (Gate 4). These gates are all described in the *Gesta Treverorum usque ad Annum Christi MCXXXII* (In Leibnitz, *Accessiones historicae*, 1698, V. I, p. 124), Ch. XXIII.

Crevit itaque civitas illa regia omni ut dictum est excellentia sublimis, muris ac vallo circumdata, turribus altis et firmis munita, quator habens publicas portas, quator mundi climatibus oppositas, quarum prima quae ad septentrionem respicit ex lapidibus quadratis non coemento sed ferro mirabili arte compaginatis constructa, nigra porta vel Martis nomen accepit. De secunda quae est ad orientem porta alba dicitur. . . . Tertia vero quae ad meridiionalem

spectat plagam *porta media* nominatur quod per eam ingredientibus *per mediam civitatem* iter pateat. Quarta autem videlicet ad solis occubitum sita ex lapidibus quadrangulis opere praeclarissimo fuit instituta cuius in exitibus statio vel portus navium, per alveum supra nominati fluminis secus decurrentis hinc et inde venientium, pro quibus per noctem illuminandis haec eadem porta quasi sole et luna ac stellis erat auro ac lapidibus preciosis artificiose fabricatis insignita unde ab operis praeclaritate *incluta porta dicta est ex nomine.*

“And so that royal city flourished, supreme in every form of excellence as it was said, surrounded by walls and a rampart, fortified by tall strong towers and possessed of four public gateways facing the four quarters of the earth, of which the first looking toward the north was built of square blocks, fastened together not with cement but by iron in a marvellous manner; it was called the Porta Nigra — the Black Gate, or the Porta Martis, the Gateway of War; as regards the second, which lies toward the east, it is called the Porta Alba,

the White Gate. . . . Now, the third which looks toward the south is called the Porta Media, or Middle Gate, because as one enters the city by it, the road leads right through the middle of the town. But the fourth gate situated toward the west was built of quadrangular blocks and was a very famous structure. At its exit, there was a roadstead or harbour for the ships which sailed up and down the aforementioned stream. This same gateway was marvellously adorned with gold and precious stones artificially wrought, so that at night these ships might be illuminated as it were by the sun, the moon and the stars, whence, on account of its marvellous construction, the gate was called 'The Famous Gateway.'"

From this description we may confidently assign the names of the gates as follows: 1. Porta Nigra. 2. Porta Media. 3. Porta Alba. 4. Porta Incluta. The gateway on our medallion as has been indicated can scarcely be any other than the fourth gate called Incluta Porta in the *Gesta*. The coin type includes

The bridge
gateway,
Incluta
Porta

the Moselle River in the foreground, and a bridge built upon arches leading to the gate. A second passage in the *Gesta*, Ch. IV, describes the bridge gate, as follows :

Quarta porta versus occidentem constructa est ad littus Mosellae quae mira sui operositate et turrium incomparabili pulchritudine ceteras portus excelluit et ob hoc *inclytæ portæ* vocabulum sumpsit. Hanc portam stellis ex auro factis mirabiliter pinxere, quae portui navium proximum nocte dieque luminis officium praebuere. "The fourth gateway towards the west was erected on the banks of the Moselle, which, on account of its marvellously elaborate construction, and the incomparable beauty of its towers, excelled the other gateways, and for this reason took the name of the *Famous Gate*. This gateway is wonderfully decorated with stars made of gold which offered by day and by night a very near substitute for light to the ship harbour."

That portion of the description which relates to the decoration of the bridge

NUMISMATIC NOTES

gate or Incluta Porta with gold and precious stones for the purpose of illuminating the ships which came to anchor near the bridge, may be dismissed as romancing on the part of the writer of the *Gesta*. There is no need, however, to question the general accuracy of the description. The modern bridge across the Moselle is constructed upon the ancient Roman buttresses which formed a powerful structure, and must have been the sole bridge for the ancient Roman city. The *Gesta* (Ch. V) bears witness to the importance and powerful character of this bridge. After mentioning the Temple and Arch of Mercury, the passage reads :

Non longe ab hinc super Mosellam ex magnis lapidibus ferro plumboque cunpactis pontem construxere quem nulla vetustas labefactare nulli fluctus possunt dissolvere. "Not far from here, across the Moselle, there was built a bridge of huge blocks, fastened with iron and lead, which neither age could weaken, nor the current of the river destroy.

The Moselle
bridge

This description is borne out by the modern investigation of the bridge in the work of Ch. W. Schmidt (see Special References). The Moselle bridge is said to be 631 feet long between the land buttresses, but was originally longer. The extreme pier on the left, and the two piers on the right, are constructed of large blocks of blue limestone, said to have come from the neighborhood of Namur in Belgium. These are fastened together without mortar, being held in place by metal clamps, just as the blocks of the Porta Nigra were fastened together, as is evidenced by the monument itself, which is still extant, and the testimony of the *Gesta* (Ch. xxiii). Five other buttresses are constructed of basaltic lava, said to be from Mayenne in Normandy, France. There are eight arches, but the spans themselves are not of Roman origin, but later. The transportation of these great blocks must have entailed an enormous cost, and this factor will be considered when we take up the question of the date of the walls, towers, and bridge.

A glance at our ground plan of Trèves shows that the bridge lies in a straight line leading towards the ruins of the Emperor's palace, along which, very probably, lay an ancient road. Thus the bridge gateway would have formed the principal entry to the ancient city whose centre was near the palace and amphitheatre of which the remains are still to be seen. It would be natural enough then, that the gateway chosen for representation on the medallion should be the Incluta Porta.

The date of the walls of Trèves and the gateway now standing, the Porta Nigra, has been the subject of considerable discussion. Our authorities on the whole, however, are pretty well agreed that the archæological indications point to a period not earlier than that of Postumus, about 258, and not as late as the time of Valentinian I and Gratianus, 364-383. Schmidt, whose opinion is regarded as the most correct by Behr, who has written the most recent work on the Porta Nigra, believes that Constantine the Great was principally responsible for the erection of

Date of the
walls

the great public buildings, walls, and bridge of Trèves. He argues that no other Emperor resided in Trèves so long as Constantine the Great, and no other Emperor is mentioned by ancient writers in connection with the restoration of the city and reconstruction of the monuments. Constantine the Great lived in Trèves in 306, 307, 313-316, then again, in 329 and 331, at certain intervals. The panegyrist, Eumenius, says in an oration to Constantine, delivered in 310 on the occasion of an anniversary of the foundation of Trèves, which was also the Quinquennial anniversary of Constantine — "May a new foundation day of the city be celebrated on account of the benefactions of the Emperor since the city walls have been restored throughout and since the city is in a certain sense grateful for the devastation suffered some time ago." From this passage we learn that Constantine the Great had just ornamented the city anew and reconstructed its monuments.

Since the archæological investigations

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<p>in general tend to establish the first half of the fourth century as the date of the principal monuments now standing, and since Constantine chose the Incluta Porta and the Moselle bridge for representation on his medallion, we may reasonably conclude from his long period of residence in this capital, that the planning and reconstruction of the principal defences and public buildings was due to his initiative.</p> <p>The Porta Nigra (see Frontispiece) (Gate No. 1, Plan of Trèves), is one of the best preserved among Roman fortified gateways, and it may be worth while to examine it briefly as it probably furnishes the best model for reconstructing in imagination the now destroyed Bridge Gateway, the Incluta Porta, shown on the medallion. The structure consisted of two fighting towers or <i>propugnacula</i> for the purposes of defense connected by galleries over a double entrance. The Incluta Porta, from the coin, appears to have had but one opening, closed by doors, doubtless of bronze, and it seems to have had four towers rounding outwards instead of two.</p>	<p>Incluta Porta on the medallion</p>
A N D M O N O G R A P H S	

But, of course, it is never safe to trust to the details given in the die-engraving of an ancient coin representing an architectural work. Furthermore, the conservatism innate in architectural construction makes one suspect that the Incluta Porta was built in about the same way as the Porta Nigra and other gateways seen on coins of Anchialos and Bizya in Thrace, Markianopolis, Nikopolis, and Trajanopolis in Moesia Inferior (see Donaldson's *Architectura Numismatica* and B. Pick's *Die Antiken Münzen Nord-Griechenlands*, Pt. I, Plates iii and xx). There were probably just two towers in the Incluta Porta proper like those of the Porta Nigra. The other two shown to right and left as higher towers in the medallion undoubtedly represent merely an attempt to show two single towers at distant points on the encircling wall. The tops of three more appear on the wall in the distance. The slanting lines at the top between inner and outer towers reveal this attempt at perspective. The die-engraver has merely tried to give the effect of courses of stone

blocks laid one above another; further than that there are no indications of windowed openings or stories. From the description in the *Gesta*, however, and the designation of the "Famous Gateway" borne by the Bridge Gate, we should imagine a structure more massive and higher than the Porta Nigra. Doubtless, it was also more ornate than the Porta Nigra in its original state, and a detail of its ornamentation is supplied by our medallion which shows a statue of Constantine above the entrance, probably to be thought of as occupying a niche just over the doors and far below the tops of the towers.

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MEDALLION OF VALENTINIANUS I

VALENTINIANUS I, 364-375 A.D.

5. *Obv.* D. N. VALENTINIANVS P. F. AVG.—*D(ominus) n(oster) Valentinianus p(ius) f(elix) Aug(ustus)*. "Our Lord, Valentinianus, reverent, fortunate, Augustus." Bust of the Emperor Valentinian I to the right wearing a diadem, cuirass and military cloak: border of dots.

Rev. GLORIA REIPUBLICAE, *Gloria rei publicae*, "The glory of the State." The Emperor, diademed and wearing military dress and cloak, standing, head to the left, holding in his right hand a globe surmounted by a figure of Victory, who holds a wreath in her right hand and a palm branch in her left towards the Emperor; in his left hand the Emperor supports a vexillum. In the exergue, ANT.—*Ant(iochiae)*, "Antioch": border of dots.

NUMISMATIC NOTES

Gold medallion. Ternio or triple solidus. 21 mm. 13.30 gr. Brussels Museum (formerly du Chastel), Plate V.

Cat. Montagu Collection, Paris, 1896, Pl. xxxii, 914; Gneecchi, *Med. Rom.* Pl. 14. 8.

This is the unique gold medallion of Valentinian I of which the rather remarkable history has been told in the beginning of this article.

Valentinian I was chosen Emperor in his forty-third year by the officers of the army at Nicæa in Bithynia in 364 A.D., and soon after named his brother Valens as colleague with him in the Empire on equal terms. He gave Valens the title of Augustus at the outset and they divided the Empire between them, Valentinian taking Italy, Illyricum, Spain and the Gauls, Britain, and Africa, while to Valens fell the Eastern half of the Balkan peninsula, Greece, Egypt, Syria, and Asia Minor as far as Persia. As this division was made soon after Valentinian's election (Ammianus Marcellinus, Chaps. xxv-xxx, makes it pretty clear that Valen-

tinian was intimidated into naming a co-ruler from the first), it may seem surprising to note that the mint at which our medallion was issued is that of Antioch in Syria which belonged within the empire of Valens. It is not necessary to assume, however, that the medallion must therefore have been struck within the short period when the two brothers were passing through the chief cities of the district near Nicæa and arranging the allotment of the Empire. For it was customary for co-emperors as long as they were on friendly terms to strike coins each in the name of the other at mints over which each ruler exercised direct control. Thus coins of Licinius were issued from the London mint which had belonged to Constantius Chlorus and passed directly into Constantine's power, and coins of Constantine were issued from the mint of Antioch which had belonged to Licinius after the defeat of Maximinus I Daza in 313. So too Valentinian and Valens issued coins for each other in mints outside their own immediate personal control.

To what period then and to what event must the medallion be assigned? The reverse type of the victorious Valentinian with the inscription *Gloria Reipublicae* suggests an important military triumph. This, it may be proposed, was in all likelihood the victory won at the battle of Solicinium on the Neckar in 368. At least, this battle marks the successful completion of a campaign against the Alemanni for which Valentinian prepared for two years. Valentinian had fallen ill in 367 when Gratianus was made Augustus at the tender age of eight, and he wished to assure the safety of his Empire and, also, to add military glory to his son's name. The attack against the barbarians lasted from June 17 to July 31, 368. The victorious outcome of this campaign, well-known in Valentinian's military career, is the one event to which we can point as the most probable occasion for the issue of this medallion.

The figure of Valentinian I on this medallion should be compared with the figure of Valentinian on a silver disc in the

Museum of Geneva (Mrs. A. Strong, *Apotheosis and After Life*, Pl. xiii, 2, and F. de Mély, *Monuments Piot*, 1900, (Vol. VII, p. 74, Fig. 2.) The Emperor is represented on this disc as the central figure addressing a group of his soldiers. He holds in his right hand a globe surmounted by a figure of Victory who is approaching him with a wreath and palm branch, while his left arm is resting upon and supporting the vexillum exactly as on the medallion. The Emperor is, also, in military dress but the head is facing forward and the body is more firmly set in a frontal pose than on our medallion. Another difference is the fact that the Emperor's head is surrounded by a large solar aureole on the silver disc.

The general similarity of the two pieces, however, is sufficient to warrant our suggesting that both of these small works of art may have been inspired by a larger work of art representing the Emperor as victor after some signal triumph. The disc is dated by M. de Mély in the year 370, but the reason for selecting this year

is not given. This corresponds with the date which has been here suggested, namely, the period immediately following the victory over the Alemanni in 368.

THE NATURE AND PURPOSE OF THE ROMAN MEDALLION

Any one who examines attentively a large number of Roman medallions will come to the conclusion now generally held among numismatists that the ancient medallion is not a medal in the modern sense. According to its fundamental nature, the medallion is a coin. Whether it circulated like a coin or not, it shows the typical characteristics of a coin. The term medallion is usually considered rather unfortunate in that it connotes the idea of a medal and thus gives a wrong impression. On the other hand, the long-continued use of the word will make it difficult to oust it from our numismatic vocabulary. Furthermore, there is no single word which can be used as a substitute. The ancients had no separate word to describe that class

of coin issues in the Roman series which some modern writers very aptly term coin-medals, or medallic coins, that is, pieces of higher denomination than usual, multiples, whole or fractional, of the aureus and solidus in gold, the denarius and antoninianus in silver, and of the *as* in bronze. But the word *numisma*, or *nomisma*, the Greek word equivalent to *nummus* "coin," came in course of time to designate coins which were out of circulation and to be used in poetry of coins in general. In a passage in the Digest, Pomponius VII, I, 28, the word is used in describing old coins:

Numismata aurea vel argentea vetera quibus pro gemmis uti solent — "Ancient gold and silver coins which they are accustomed to use as jewelry."

This is an interesting passage furnishing ancient testimony as to the use of coins and medallions in jewelry, although the word *numismata* here cannot be taken as designating medallions only, but means rather coins which were no longer in circulation. The generic word *forma* combined

with adjectives derived from distributive numerals to indicate the multiple, *formae binariae, ternariae*, etc., is found in the passage from the Life of Alexander Severus quoted at length below. The word "binio" occurs in a description of a coin of Gallienus, and the word "quaternio" is found on a quadruple antoninianus of Valerian and Gallienus (*Rev. Num.*, 1855, p. 392). Thus there is ample justification for the terms binio, ternio, quaternio, quinio, senio, etc.

The Roman medallions, however, were not merely multiple coins. If that were so, we should expect to find them in larger quantities, to see them in proportionate numbers at different periods, whereas they are scarcer than any other issues. For the first two centuries of the Empire, gold and silver medallions are extremely rare. Only two gold medallions of the First Century A.D. have come down — one of Augustus found at Pompeii in 1759 and now in the Naples Museum, and one of Domitian, formerly in the French collection; but now lost. It is only in the Third Century

under Caracalla and Elagabalus that large numbers of gold medallions appear to have been^o coined. In the Fourth Century, gold medallions are fairly abundant; and with this increase in number comes also an increase in the size, for it is only at this period that the gold medallion takes on that fundamental quality of the modern medal which is an unrestricted diameter, a feature which links the Roman medallion in gold of this period more closely to the modern medal than in its origin. But while the large gold medallions of the Late Empire suggest the modern medal most vividly, and have certainly this much in common with the medal, namely, a commemorative purpose, it is easy to indicate the points of difference between the Roman medallion in general, and the modern medal.

Briefly stated, there is, first, the fact that their issue was entirely controlled by the state, that is, imperial authority. This is true also of the bronze medallions struck under senatorial authority and designated as senatorial issues by the

letters S. C. on the reverse, for the senate's power to strike these pieces was delegated by imperial authority. No private individual, or private society or association of individuals, could issue a medallion as may, of course, be done with a modern medal. Only the Emperor, and those persons whom he designated, could be represented on the medallions. No artist, statesman, general, or philosopher had this privilege. Secondly, the metal and the weights of the medallion are in strict accordance with the standard existing for the coinage. The silver and bronze medallions suffer the same periodical decline and renewal in fineness of metal as the coinage, and the weights vary with the rise and fall of the weights of the coins. Thirdly, the restricted diameter of the medallion up to a very late period indicates the adherence to the conventional standard of size set by the actual coin units of which they were the multiples, weight being expressed by the thickness of the flan (this refers chiefly to bronze). Again, the types are almost exclusively concerned

with the Emperor, his protecting deities, his conquests, his festivals, the provisioning of the city, the solidarity and loyalty of his army. Lastly, while the medallions do not bear marks of value, which is true also of coins with rare exceptions, still they bear in the exergue mint marks at the same period at which mint marks are regularly found on coins.

Turning to the historical evidence, we find this most convincing. The most important literary text describing medallions in their relation to coins is found in the passage (Chapter 39) in the *Life of Alexander Severus* by Lampridius, here quoted in full.

Vectigalia publica in id contraxit, ut, qui decem aureos sub Heliogabalo praestiterant, tertiam partem aurei praestarent, hoc est tricesimam partem. Tuncque primum semisses aureorum formati sunt; tunc etiam, quum ad tertiam aurei partem vectigal decidisset, tremisses; dicente Alexandro, etiam quartarios futuros, quod minus non posset: quos quidem jam formatos in

moneta detinuit, exspectans ut, si vectigal contrahere potuisset, et eosdem ederet: sed quum non potuisset per publicas necessitates, conflari eos jussit, et tremisses tantum solidosque formari. Formas binarias, ternarias et quaternarias, et denarias etiam, atque amplius, usque ad bilibres quoque et centenarias, quas Heliogabalus invenerat, resolveri praecepit, neque in usu cuiusquam versari, atque ex eo his materiae nomen inditum est, quum diceret plus largiendi hanc esse imperatori causam, si, quum multos solidos minores dare possit, dans decem vel amplius una forma, triginta et quinquaginta et centum dare cogere-
tur — “He lessened the public taxes to this degree that those who under Elagabalus had paid ten aurei should pay a third of an aureus, namely, the thirtieth part of the old tax. Then, for the first time, half-aurei, or semisses, were struck; and also third aurei, or tremisses, when he had lowered the tax to the third of an aureus. He was also intending to issue quarter-aurei, the lowest tax possible, and these were in fact already struck, and Alexander held

them in the mint in the expectation that if he could reduce the tax, he could put them into circulation. But when he was unable to do so because of public necessities, he ordered them to be melted down and only tremisses and whole aurei to be struck. He ordered also the melting down of the double, triple, and quadruple aurei, and likewise the pieces of ten aurei and more, even up to the two-pound pieces, and also those of one hundred aurei which Elagabalus had invented, and forbade that they should be used as money (lit. forbade that they should be found in any one's use). From that time on, the name of bullion was given to these pieces. He stated that these pieces had compelled the Emperor to distribute largesses on a greater scale (*i.e.* than he wished), since in place of giving several aurei (lit., whole pieces, or units, *solidi*) of less value, he was obliged, if he distributed pieces of ten aurei or more, to give sums of thirty, fifty, and one hundred aurei."

It is particularly to the sentence beginning *formas binarias, ternarias et quaternarias*, that we wish to call attention.

Lampridius here states that Alexander Severus ordered the multiple aurei, namely, the double, triple, quadruple, and more aurei, to be melted down and retired from circulation. The context shows that these multiples were hitherto regarded as part of the regular currency, one of the chief uses of these larger denominations being their distribution by the Emperor as largesses or liberalities. The command that these pieces be withdrawn from circulation and be considered merely as bullion is mentioned by Lampridius in immediate connection with the discussion of new coin denominations — these were the tremissis, or third-aureus, which was struck by Alexander to facilitate payment of taxes, and a projected issue, the quarter-aureus, which was struck but not issued and subsequently melted down. Lampridius, who wrote about a century after Alexander, is in error in his first, and incidental, statement about the divisions of the aureus, namely, that the half-aurei, *semisses aureorum*, were first issued under Alexander, for of course we find the

quinarius aureus at the beginning of the Empire. The third-aureus, also, which he assigns to Alexander (222–235 A.D.), as the inventor is, according to numismatic evidence, first known under Valerian (253–260 A.D.). The historian is probably led to attribute the introduction of the tremissis to Alexander on account of Alexander's reform of the taxes which might naturally have called forth such an issue. As coins of this denomination are lacking, however, before Valerian's time, the statement must remain unconfirmed.

Lampridius is at great pains to depict Alexander in his character as Severus, pointing out in the following chapter, 40, his preference for extreme simplicity in dress and manners. It was from motives of economy that the "pieces of two, three, four, ten, and more aurei, up to pieces of two-pounds and even one hundred-aurei, which Elagabalus had invented," were consigned to the melting pot. This sentence is of prime importance, for it attributes to Elagabalus the first issue of medallions of phenomenal weight. The

text allows the interpretation of the clause "which Elagabalus had invented" as restricted to the words immediately preceding, namely, "the two-pound and 100-aurei pieces." Again, there are in existence to-day medallions of the denominations known as binios, ternios, and quaternios from the period preceding Elagabalus, which confirms the above interpretation. But in detail Lampridius has fallen into error. For in the time of Alexander Severus, the aureus having a weight of 6.54 grams was struck on the basis of 50 to a Roman pound, $6.54 \times 50 = 327.00$ grams. Hence, the *bilibres*, or two-pound pieces, would be precisely pieces of 100 aurei, and Lampridius' phrase *usque ad bilibres quoque et centenarias*, "even up to the two-pound pieces, and also those of 100 aurei," makes nonsense. Probably the writer may have been thinking of pieces of 50 and 100 aurei which would be pound and two-pound pieces (327 grams and 654 grams). M. Babelon remarks that the *formae bilibres* and the *formae centenariae* are equivalent expressions

(*Traité des Monn. Gr. et Rom.* I¹ p. 529). Kenner (*op. cit.*, pp. 23 and 144) emends the text to read *usque ad librales quoque et centenarias* — “up to pound pieces and those of 100-aurei”, which gives the required sense although probably not the original words.

It is interesting to consider the exact words used for the acts of demonetization attributed by Lampridius to Alexander. Of the projected quarter-aurei pieces, he says *conflari eos iussit* — “he ordered them to be melted down”; but of the multiple aurei which Alexander wished to withdraw from actual use, he says “*Resolvi praecepit neque in usu cuiusquam versari, atque ex eo his materiae nomen inditum est*” — “He ordered them to be melted down and not to be found in anyone’s possession or use; and from that time on the name of bullion was given to these pieces” — that is to say, the command was to melt down these pieces in due course as they were gathered into the treasury or mint, and meantime they were not to be circulated as currency but as mere gold

bullion; the second part of the decree working immediately to restrict the power of legal tender which these pieces had formerly possessed. Such an act would not have prevented a large number of the medallions from being retained as souvenirs, and encased in frames and worn as jewelry, which was commonly done in the Fifth and Sixth Centuries, A.D. Whatever may have been the fate of the large medallions invented by Elagabalus — whether destroyed as the result of this decree, or in later times, but one gold medallion of this Emperor exists to-day, a binio (Gnecchi, Pl. I, 7). Of Alexander Severus, a binio (Cohen, 267) of the year 225, and an octuple piece or double quaternio (Cohen, 406) of the year 230 (the Decennalia) are known. Thus, Alexander appeared to have struck multiple aurei, but perhaps they were previous to his act of demonetization. The formation of multiples in gold, to judge from what is extant and the literary testimony, was an arbitrary matter resting with the Emperor and not part of the regular currency

system. Official and unofficial melting down in antiquity and later, accounts for most of the present dearth of examples.

The striking of medallions of unusual dimensions did not become a common imperial custom until the Fourth and, particularly, the Fifth and Sixth Centuries, when they attained a really remarkable size. The famous medallion of Justinian I (527-565 A.D.) now lost, discovered at Caesarea in Cappadocia in 1751, (*Brit. Mus. Cat. of Byzantine Coins*, p. 25, frontispiece), weighed 162.5 gr. equal to 36 solidi or half a Roman pound of 72 solidi, and measured 85 mm. in diameter. Similarly, a medallion of Valens (364-378 A.D.) with the reverse *Gloria Romanorum* (Kubitschek, *Ausgewählte Römische Medaillons*, 356) having a narrow frame but no ring for suspension weighs about the same, 178.9 gr. The gold framed medallion of Constantius II (323-361 A.D.) (Kubitschek, *Ausgewählte Römische Medaillons*, No. 300), with the reverse *Gaudium Romanorum*, cannot now be weighed very exactly on account of its wide frame. The total

weight is 256.9 gr. and the diameter 93 mm.; the medallion, itself, however measures 71 mm.

Another medallion, like the two preceding pieces also in the Vienna Museum, surpasses all others known to-day in weight. It has a narrow gold frame and perforated attachment with a total diameter of 92 mm. and weight of 412.72 gr. This is the piece bearing the bust of Valens and *Gloria Romanorum* reverse. Discounting the frame, the medallion proper must be equivalent to 90 solidi or more, at 4.50 gr. each. This piece gives us a vivid idea of the pound and two-pound pieces of Elagabalus noted by Lampridius, for it weighs more than the Roman pound of 327 gr., and of the medallions described by Gregory of Tours (*Hist. Franc.* Ch. vi, 2) as follows :

Aureos etiam singularium librarum pondere quos imperator misit, ostendit, habentes ab una parte iconam imperatoris pictam, et scriptum in circulo: TIBERII CONSTANTINI PERPETUI AUGUSTI; ab alia vero parte habentes quadrigam

et ascensorem continentesque scriptum : GLORIA ROMANORUM. "He showed gold coins of the weight of a pound each which the Emperor had sent, having on one side the portrait of the Emperor with the inscription around it 'of Tiberius Constantinus, forever Augustus,' and on the other side, a quadriga and charioteer with the inscription *Gloria Romanorum*."

The simple word aurei (gold coins) is used here of these medallions, striking proof that the ancients had no distinct or separate word for medallion. These very large medallions were, however, quite exceptional. According to the literary testimony, as we have seen, this species of gold medallion began under Elagabalus, and, according to the existing specimens, these large pieces are found chiefly during the reign of Constantius II and Valens. But the commonest denominations are the binios, double aurei and solidi, the ternios, quaternios, quinios, and senios. The octuple solidus or double quaternio is rarely found.

The Roman gold medallion, as has been

shown, occupies a place intermediate between the coin and the medal. It was, in fact, a coin in all its external aspects, weight, metal, and types, but it certainly was not struck primarily for circulation, although no doubt capable of circulating as currency. The same fundamental monetary character may be established in the case of the silver and bronze medallions, although these may have been more easily absorbed into the regular currency, and have actually seen more circulation than the gold. The two passages cited above (1) Lampridius (1st third of the Fourth Century) *Vita Alexandri Severi*, Ch. 39, (2) Gregory of Tours (Sixth Century) *Hist. Franc.* VI, 2, indicate clearly the donative character of the gold medallion. We have, also, a decree of the Emperors Theodosius and Valentinian of the year 348 A.D. (Cod. Theod. 15. 9. 1) which forbade the actors from distributing "heavier silver coins than those weighing one-sixtieth of a pound" (5.45 gr.). Such "heavier silver coins" which the actors had formerly used must have been in fact

silver medallions, and the passage quoted confirmed the donative nature of these pieces.

The circumstance that many of the largest medallions have come down to us encased in ornamental frames or equipped with rings for suspension, has naturally tended to support the argument as to the medallic nature of these pieces. Coins, however, are just as frequently found set in gold to be worn as necklaces, bracelets, etc. Several large finds have yielded most remarkable treasures of this sort, One find made in Hungary, near Szilágy-Somlyó, in 1797, brought to light as many as 24 Roman medallions. In this hoard were contained the unusually large framed medallions of the Vienna Numismatic Collection with the heads of Constantius II, Valens and Gratianus.

A second large find of gold jewelry, including pieces set with coins and medallions, unearthed in 1909 in Egypt (Dennison, "*A Gold Treasure from Egypt*") is of great interest in this connection, the objects in this find ranging in date from

the Third to the Sixth Century; the majority, however, belonged to the latter century. The goldsmith's work on the pectorals and medallions is regarded as of Egyptian or Syrian origin, and differs decidedly from the style of work on the Vienna medallions which were found in Hungary. The frames of the medallions from Hungary are characterized by solid decorative bands, whereas those from the Egyptian find are of more delicate workmanship with wire coils, chiselled work, raised spirals, and, very frequently, open-work designs.

From the find place of the Vienna medallions (Szilágy-Somlyó in Hungary, which was in the ancient province of Dacia which became lost to the Roman Empire in 274)⁷ and from the style of art of their frames, Kenner has inferred that they were made into objects of jewelry outside the Roman Empire and were worn particularly by barbarian chieftains who received them as gifts from the princes of the Empire. The recent find in Egypt disposes of this theory as applying to all medallions of this

class for the objects in it were produced within the bounds of the Empire. Furthermore, we have the statement of Pomponius (Dig. VII, 1. 28) above quoted to the effect that the ancients were accustomed to wear old gold and silver coins as jewelry. And Dennison points out that the Sixth Century to which he assigns the large medallion of Theodosius I from the Egyptian treasure (No. 2 in the Freer Collection, the only coin-medallion proper, *i.e. struck* piece in the find), was one of great luxury in which elaborate jewelled ornaments were worn by the wealthy people of the time. The custom is exactly parallel with the modern practice of wearing coins as brooches and as pendants. Just as imitative jewelry is designed from models, so the ancients wore jewelled pieces with medallions cast or repoussée in gold to imitate the originals as, for example, those in the Morgan and Freer pectorals in the treasure from Egypt. In general, it may be inferred that the settings, if not in every case strictly contemporaneous, are not very far removed

from the periods of the medallions themselves — that is to say, they belong to the late Roman period.

A third find of gold medallions encased in frames is that made at Velp, in Gelderland, Holland, in 1715, which contained a large gold necklace to which were attached five large medallions of Honorius and Galla Placidia. The examples of these medallions in the Paris collection are from this find. The find place which is outside the bounds of the Roman Empire at the time of Constantine is of interest in connection with the find in Hungary. A large proportion of the framed medallions shown in Gneecchi's *corpus* came from the Szilágy-Somlyó find, so that it would appear that of all the framed pieces known the majority come from find spots outside the Roman Empire. Thus Kenner's contention that these medallions were presentation pieces offered to chieftains of barbarous tribes by the Emperors is materially strengthened.

O. Seeck and Fr. Kenner have both contributed admirable analyses of the purposes

for which the Roman medallion was created. The gold medallion was a form of money suited to the high position of the Augustus of which the Emperor made use for the purpose of personal commemoration. The medallions must not be thought of as gifts or largesses handed out to the people or soldiers. Their scarcity points rather to a restricted circle of privileged political and social acquaintances of the Emperor. From the First Century on, the houses of distinguished men were visited by a large number of clients who were entertained on public occasions by their patrons. At first, the entertainment took the form of a meal, but later a definite sum of money, the *sportula*, was given as the equivalent of the chief meal of the day. and thus the entertainment of these somewhat troublesome guests was compounded. Such *sportulae* were presented on the birthday of the patron, his entry into a consulship, a marriage anniversary, and other festival occasions. *Sportulae*, furthermore, were given to those who dedicated a public building and so on, and

were distributed among guests at a social entertainment. New Year's gifts also were quite general, and the Emperors shared in the custom in that they received and demanded gifts of money at the *Salutatio*. A letter by Symmachus has come down to us in which upon entry into his consulate, he accompanied the invitation with a gold solidus. There are several other letters which speak of the gift of two solidi on the occasion of the marriage of his son. Presents of money could be offered, also, to men of rank and influence. The *sportula* in the beginning was a very modest sum of money, just sufficient to buy with it a mid-day meal. In the Fourth Century it had developed into a very considerable gift, and this development started even in the Third Century. In harmony with this, the gold medallions are very scarce and are almost entirely lacking in the first two centuries of the Empire, and silver also are extremely scarce.

The types of the medallions reflect the motive which led to their issue, games,

triumphal processions, the first arrival in the city, the departure for war, the Vota sacrifices or Jubilee of the reign, the introduction of the Caesar as princeps inventus, the marriage of the same, the birth of his children, the dedication of a temple, the *consecratio*, — these are the medallion types most commonly chosen.

The medallion was well suited to commemorate the fame and prestige of the Emperor's family. The announcement of the appointment of a son to the rank of Caesar, or of his wife to that of Augusta, had as object the increase of public interest in the Emperor's household. Undoubtedly, there was complete distinction of person according to the official position and political importance of the recipient. An example has been given already under medallion, No. 3, the *Equis Romanus* type, of an apparently intentional gradation of weights. Other cases may be cited in which a given type was struck in a series of different weights.

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NOTES

¹ The institution of the Decennial games and the Vota goes back to the early period of the Empire (cf. Eckhel, *Doctrina Numorum Veterum*, Vol. VIII, Ch. XIV, *De numis votorum*). although mention of them occurs more frequently in the days of the declining Empire, Augustus, in order to avoid the suspicion of assuming royal power, undertook the *imperium* or supreme control over his own provinces, *i.e.* the non-senatorial, for a period of ten years, promising to pacify them completely within that time. When the first decade had elapsed, he renewed his *imperium* for five years, and then again for five and later ten years and so on. The following emperors, although receiving the *imperium* for life, maintained the custom of periodical games and prayers for the happy conclusion of the various periods and auspicious anticipation of the ensuing interval.

² Maurice, *Num. Constantin.*, Vol. I, p. cxl, p. 467, and Vol. III, p. 51.

³ Five gold medallions are known which were struck in the name of Constantine II to commemorate the Decennial celebration of 326-327 (Seeck, *Zeit. f. Num.*, 1898).

⁴ On this whole vexed question, see Maurice, *op. cit.* Vol. I, pp. 468-469. Compare also Maurice, *op. cit.* Vol. II, pp. 408, 410, where it is

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demonstrated that the issues of Constantius II, who became Caesar on Nov. 8, 324, showing the same type of uplifted head (as on the coin of Crispus, Cohen, 59) struck at the mint of Tarragona, cannot be later than the end of 326, when this mint was closed; nor earlier than November, 324, when Constantius II was elevated to the rank of Caesar. In the natural course of events, Constantine the Great probably ordered his portrait, as described by Eusebius, to be placed upon his own medallions issued for his Vicennial celebrations, 325 and 326; and thereafter, on the occasion of the Decennial celebration of the Caesars in 326, to be placed upon the coinages of the Caesars, Crispus, Constantine Junior, and Constantius II. The solidi as well as the multiple issues were probably distributed as *sportulae* to the important personages of the Empire, and to the chiefs of foreign states which sent delegations to congratulate the Emperor on the anniversary.

⁵ After the argument establishing the *Porta Incluta* as the gateway represented on the medallion had been worked out, the writer's attention was called to A. Blanchet's book on the Roman walled towns in Gaul (see Special References). M. Blanchet begins (p. 89) with a description of two gateways of which remains are still *in situ*, No. 1, the *Porta Nigra*, and No. 2, the *Porta Mediana*, whose ground plan

is about the same as that of the *Porta Nigra*, except that the bases of the towers are square instead of round. In a footnote, p. 92 (2), the author enquires whether this second gateway may not have been the *Porta Mediana* noted in a Latin text of 853 A.D. After describing gate No. 3, the gate of the amphitheatre, Blanchet continued, "It is admitted that a fourth gate lay opposite to this near the site of the Moselle bridge." In a footnote, p. 92 (3), he adds, "Later on I shall revert to a gold coin which probably represents this gate." On p. 331, after enumerating various instances of coins representing 45 gateways, Blanchet continues, "Consequently certain exceptional pieces perhaps allude to particular constructions such as the double solidus of Constantine the First, 306-337, struck at Trèves, which represents not the gate alone, as has often been said, but the walled enclosure of Trèves flanked by seven towers and fortified with a double gate; in front is the Moselle and a bridge. Above the gate is the statue of the Emperor; to right and to left are crouching prisoners (Pl. xxi, Fig. 3). One cannot refrain from connecting this small coin with a passage in the panegyric of Constantine which mentions this Emperor's building activity." Note (4) adds, "The gate represented is facing the Moselle on the west of the city. It cannot, therefore, be the *Porta Nigra* which is on the north side and far from the

river. One must bear in mind artists' conventions, so important in ancient art, in regard to these representations on coins; thus the great enclosure at Trèves had more than seven towers." Note (5) to p. 331, quotes a passage in the *Incerti Panegyri*. VII, 22 (edition Baehrens p. 178): "*ita cunctis moenibus resurgentem.*"

Putting all these references together, one may infer that Blanchet wished to identify the Trèves gate on the medallion with the Bridge gate. The important evidence supplied by the *Gesta Trevirorum*, and the evidence derived from the statements of contemporaries of Constantine as to his architectural constructions at Trèves were, however, lacking, so that Blanchet did not bring out strongly the identification of the gate as the *Porta Incluta*.

⁶ In tracing the origin of the statement that the gate on the medallion should be identified with the *Porta Alba*, a short article by A. de Longpérier in the *Rev. Num.*, 1864, on this same medallion was discovered (see Special References). M. de Longpérier rejected the identification of the gate with the *Porta Nigra* on the ground that, since the excavations, the gateway showed two large arches like the arch of Augustus at Nîmes. On the other hand, the author does not accept the identification with the *Porta Alba*, which gate is represented on the coinage of the archbishops, Dietrich 965-977, and Ludolf 994-1008, of which the latter

bears the inscription PORTA ALBA. Quoting from the *Antiquities of Trèves* by Brower et Masen, "*Antiquitatum et Annalium Trevirensium libri XXV*," Liège, 1670, the author interestingly enough concludes that the gate on the medallion must certainly be identified with the fourth gateway mentioned by these writers, namely, the *Porta Inclyta* — the very conclusion which we had reached from quite independent sources. Doubtless, these seventeenth-century writers whom Longpérier consulted derived their information from the *Gesta Trevirorum*, as is quite apparent from the quotation cited (*op. cit.* p. 98):

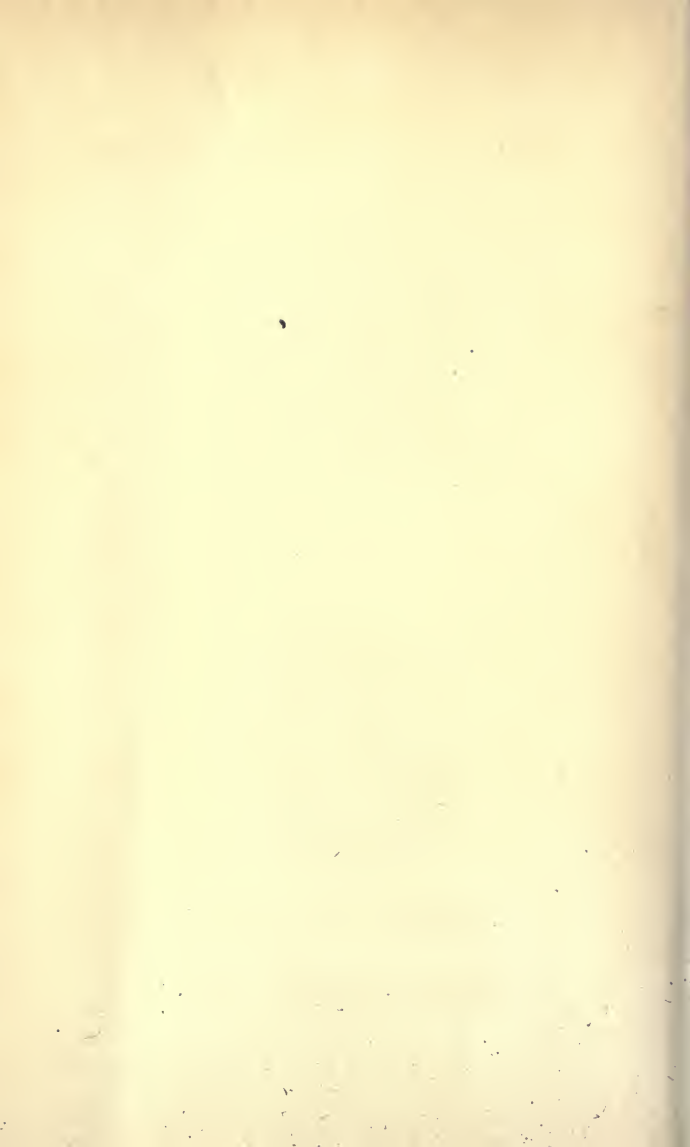
"Quarta occidentem versus ad Mosellae allabentis litus excitata porta erat quae illustri specie artis, et magnificentia operis, cæteras longe superabat; ut ab ipsa structurae elegantia, porta *Inclyta* diceretur. Haec porta aureis siderum figuris exornata, et nocturno succensa ac late coruscans lumine, navigantibus phari loco proposita ipsum quoque urbis portum grata luce collustrabat."

⁷ Kenner, *op. cit.*, p. 153, refers to the large framed medallions of Constantius II and Valens as having been probably gifts of these emperors to barbarian chieftains whose 'Germanic' goldsmiths' art is recognizable in the frames. Their find place, also, he thought, pointed to their having been worn by princes

outside the Roman Empire. On this point, it must be recalled that the province of Dacia, where the find occurred, became Roman again under Constantine the Great in 328 (Maurice, *Num. Const.* Vol. I, p. cxlvii).



Medallion of Constantine I
Siscia





Medallion of Constantine II
Thessalonica



Medallion of Constantine I
Nicomedia



Medallion of Constantine I
Augusta Trevirorum



Medallion of Valentinian I
Antioch



NUMISMATIC NOTES AND MONOGRAPHS

No. 7



THE MEDALLIC WORK OF A. A. WEINMAN

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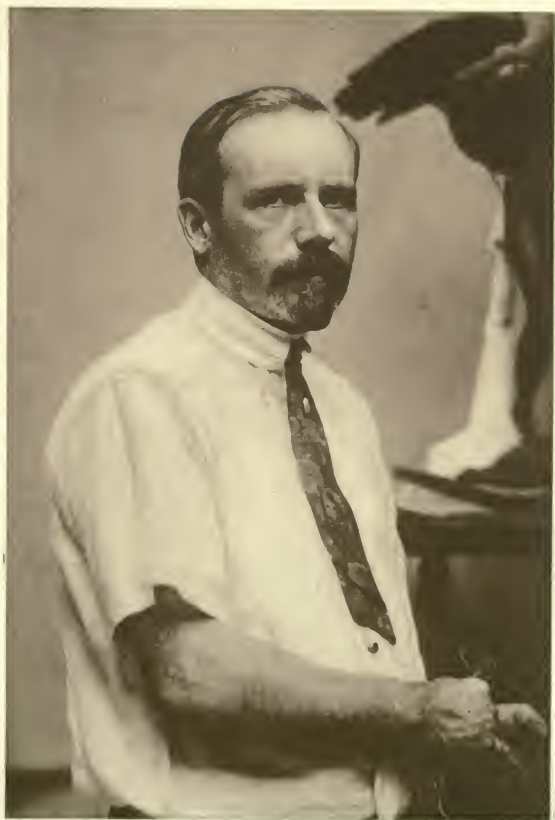
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THE MEDALLIC WORK OF
A. A. WEINMAN

BY SYDNEY P. NOE

ADOLPH ALEXANDER WEINMAN was born on December 11, 1870. This date fixes his present age. Aside from that, however, it has less significance than the one a score of years later, on which he decided to make sculpture his profession. The way of the sculptor was hard in those days and there were few inducements toward such a choice. A glance at these by-gone conditions may aid us in realizing the progress which has taken place in three decades.

By 1890 the tide of our National taste had turned. Only since the Centennial Exposition of 1876 had there been any marked indications of the change. There, the visitors had their eyes opened to what

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Europe had to offer in the way of Art, notwithstanding that some of the paintings and objects exhibited could come within this category only by courtesy. Travel, too, was rapidly becoming less costly and not so difficult, and the people who had gone abroad were coming back with higher standards and broadened tastes. The voices of Hunt, Saint-Gaudens and John La Farge were beginning to be heard in the land. Photography was aiding by substituting inexpensive and accurate prints for the poor and costly engravings which had preceded them. Several groups of architects were just coming into prominence, and with their rise, sculpture, always in close alliance with its sister art, began to find a steadier demand for its output and a better understanding of its decorative possibilities and limitations. In consequence, the succeeding decade saw a tremendous growth in the plastic art—saw it develop into a medium of expression excelled only by painting.

When sixteen years of age, Mr. Wein-

man was apprenticed as a carver of wood and ivory under Kaldenberg. He attended the classes at Cooper Union, and by the time he had reached his twentieth year, he was enabled to enter the studio of Philip Martiny. Here he worked until 1895.

Mr. Martiny is one of the best teachers to whom a young sculptor could have gone for his first instruction. His work is characterized by a technical excellence far above the average. Born in Alsace, his heritage of good taste gave him an advantage over his competitors. Part of his training had been received in France, and in America he had come under the influence of Saint-Gaudens early in his career. Although most of Martiny's work was in the round, it was in these early years that the first stimulus towards medallic expression came to Mr. Weinman. At the World's Columbian Exposition in Chicago, in 1893, a room was devoted to the work of European medallists, and this proved a revelation to the young student. Enquiry into methods and pro-

cesses followed, and the development has continued ever since.

In 1895 Mr. Weinman was promoted to the post of assistant in the studio of Olin L. Warner. A brief word will make clear the reasons for this listing of his instructors. Too often the sketch of an artist's career becomes little more than a roll of the masters under whom he worked. Such a mere list, however, has significance. Those familiar with the history of painting know that the number of pictures attributed to Rubens is far greater than could have been produced by a single man in a long lifetime. More than most of the other masters of painting, he used his pupils for the preparation of his canvases and the drudgery of his many huge pictures. Just such a procedure maintains in the studios of sculptors, and especially where the work is being executed in marble. The master supplies the design or model and the pupils carry out his instructions. The block is hewn down from the proportions in which it was received until it begins to assume the form demanded by

the subject. The wax or clay model selected as nearest to the ultimate intention of the master is then copied roughly; but not until his figure is to be seen as through a veil does the master begin his work. Previously, of course, he will have been watching his pupils with jealous eyes lest a careless blow endanger his creation. Then, like Galatea under the touch of Pygmalion, the figure begins to take life at his hands. The niceties of the finished work begin to appear.

Naturally, master and pupil must be in close sympathy else they could not work together. A comradeship of thought and deed which has continued for several years makes the pupil the spiritual son of his master. Consequently, the roll of those who have inspired and led the thought of the beginner is of more than casual significance, because to anyone familiar with the work of these masters it shows what influences have been guiding the hand and spirit. His education begins as an assistant, and is supplemented by such courses at schools as the

evening classes permit. Gradually he develops until he assumes the rôle of a collaborator — a co-laborer, with his master. Sometimes, though not frequently, this assistance is acknowledged — Mr. French's figures of "The Continents" which adorn the New York Customs House, bear his signature "Assisted by A. A. Weinman." When the master feels that he has given of his best to his pupil, the youngster is pushed out to make his own way and become a master in his turn and in his own right.

The interest in medals which the exhibition at Chicago had awakened was further stimulated in Warner's studio when Mr. Weinman assisted on the bronze doors of the Congressional Library. Warner had produced a series of portrayals of the American Indians which are among the best of the early medals produced in this country. Mr. Warner, however, died very suddenly, within nine months after the time Mr. Weinman had begun to work with him. This catastrophe brought to Weinman an invitation to

enter the studio of Augustus Saint-Gaudens as his assistant.

It is to Augustus Saint-Gaudens more than to any other single artist that we owe so much for his effort to awaken this country to the importance and value of fine sculpture. He achieved an enviable position of respect and admiration. A natural leader, he stimulated his pupils and assistants with inspiration to which they all testify. In consequence, there was the greatest benefit in coming under his direction. Because Saint-Gaudens was a master of bas-relief, Weinman's interest in medals received added encouragement.

In 1898 Saint-Gaudens left for Europe, and Mr. Weinman then entered the studio of Charles H. Niehaus. Here, for little more than five years he worked under the influence of another of our prominent American sculptors. Then followed two years of collaboration with Daniel C. French, and feeling that his preparation was now adequate, he set up a studio for himself in 1906.

During this time his interest in medals had been growing steadily, and occasional

plaques had been produced in spare moments. One of the earliest of these is the portrait of his mother modelled as early as 1896. Portraits of children followed in 1898 and 1900. An official commission for the Louisiana Purchase Exposition in 1904 gave opportunity for a different type of medal. There came an opportunity to collaborate with Saint-Gaudens in the Roosevelt Medal (1905). In 1906, the Life-Saving Medal was designed, and followed in the next year by the Award Medal of the American Institute of Architects. Portrait plaques were finished in 1910, and during 1911 designs for the new dime and half-dollar were carried to completion. Two charmingly decorative medallions of his little daughter were completed in 1915, and in 1918 he finished the J. Sanford Saltus Award Medal given by the American Numismatic Society for artistic achievement in the art of the medal. Mr. Weinman has since been awarded this medal. A War Service medal for Mount Sinai Hospital, finished early in 1920, is the latest of Mr. Weinman's productions in this field.

A study of these medals will show a development which has been consistent in reaching toward better things. Portraiture, which is the chief objective in the earlier medals, is achieved with a growing sense of ease and power in each succeeding design. The composition steadily grows more skilful and the problems faced become more complicated without the result being the less happy.

Mr. Weinman's skill in modelling children is shown in the "Rocking-horse Baby", and the plaquette of "Bobbie" with his lifelike attendant. In the Saltus Award Medal Mr. Weinman has overcome a series of difficulties with a happiness that brooks comparison with the work of some of the Renaissance medallists.

In the following list of Mr. Weinman's medallic work, the metal of which the piece is struck is indicated for the Award Medals. Many of the portraits are galvanos. Most of these medals may be seen at the Museum of the American Numismatic Society.

CATHARINA · WEINMAN · MDCCC
· XCVI · Bust of the artist's mother
facing to the left. In the field to the left,
AAW in monogram dividing FE — CIT.

Medal 90 mm. in diameter.



• DOROTHY. Baby's bust facing to right, wearing a bonnet with embroidered band. In the field to the right AAW in monogram, beneath which is FECIT.

Medal 76 mm. in diameter.



CHARLES · YOCE · HARVEY · Bust facing to right. The inscription in the exergue. In the field near the top and at right AAW FECIT. MCMII.

Oblong plaque with curved top.

Medal 105 mm. x 90 mm.



16	MEDALS BY WEINMAN
	<p data-bbox="363 510 845 539">THE ROCKINGHORSE BABY</p> <p data-bbox="270 556 936 766">On an old-fashioned rocking-horse facing to the left, a child sits with both hands clasped over the ears of the horses. The lash of a whip lies across one of the rockers. In the field at the upper right, A . A .</p> <p data-bbox="273 774 674 803">WEINMAN FECIT . MCMII</p> <p data-bbox="308 811 741 850">Medal 95 mm. in diameter.</p>
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LIFE SAVING MEDAL

Obv. A nude male figure holding a flaming torch in his left and drapery in his right hand, kneels upon a rock lying on a railroad track. Behind him is a switch light. At the left, on either side of a spray of oak, . LAVS . VIRTVTIS . | HEROIS . PRAEMIVM . In small letters at the lower left, . A . WEINMAN .

Rev. A blank reserve space across an ornately filleted wreath. Above the cartouche . FOR . | . BRAVERY . | . AWARDED . TO . | ——— . Beneath, . ACT OF CONGRESS . | . FEB . 23 . 1905 . Around the edge . THE . VNITED . STATES . MEDAL . FOR . LIFE . SAVING . ON . RAILROADS .

Struck at the Philadelphia Mint.

Bronze medal 75 mm. in diameter.

This medal is worn suspended by a ribbon having a white centre, (for safety), three-quarters of an inch wide, with a band of red, (for danger), on the left and green, (for caution), on the right, each three-eighths of an inch wide. The con-



ditions of the award of the Life Saving Medal are stated in the enactment quoted below :

Chap. 744: *An Act to Promote the Security of Travel upon the Railroads Engaged in Interstate Commerce, and to Encourage the Saving of Life.*

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled: That the President of the United States be, and he is hereby authorized, to cause to be prepared bronze medals of honor with suitable emblematic devices which shall be bestowed on any persons who shall hereafter, by extreme daring, endanger their own lives in saving, or endeavoring to save, lives from any wreck, disaster or grave accident, or in preventing, or endeavoring to prevent such wreck, disaster or grave accident, upon any railroads within the United States engaged in interstate commerce. *Provided:* That no award of said medal shall be made to any person until sufficient evidence of his deserving shall have been furnished and placed on file, under such regulations as may be prescribed by the President of the United States.

Sec. 2. That the President of the United States be, and he is hereby authorized, to

issue to any person to whom a medal of honor may be awarded under the Provisions of this Act a rosette or knot, to be worn in lieu of the medal; said rosette or knot and ribbon to be each of a pattern to be prescribed by the President of the United States. *Provided:* That whenever a ribbon issued under the Provisions of this Act shall have been lost, destroyed or rendered unfit for use without fault or neglect on the part of the person to whom it was issued, a new ribbon shall be issued to such person without charge therefor.

Sec. 3. That the appropriations for the enforcement and execution of the Provisions of the Acts to promote the safety of employees and travellers upon railroads are hereby made available for carrying out the Provisions of this Act.

Approved, February 23, 1905.

LOUISIANA PURCHASE MEDAL

*Commemorative Medal **

Obv. A triangular planchet with curved sides. In a circular reserve, a draped female figure wearing a Liberty cap, throws about her shoulders and about a more youthful figure, an American flag whose folds occupy the field. At the lower right, the rising sun with its rays. · VNIVERSAL · EXPOSITION · SAINT · LOUIS · VNITED · STATES · OF · AMERICA · In the exergue · M · C · M · IV · The space outside the reserve is filled with stars. Wreaths are at each point of the triangle; within the wreath at the upper left, U S; at the right, J N; below, fleur-de-lys.

Rev. An American eagle with outspread wings above a cartouche bearing the inscription · COMMEMORATIVE · MEDAL · | · LOUISIANA · PURCHASE · | · EXPOSITION · Beneath the reserve, two dolphins, opposed, with a scallop shell above them. The field outside the reserve is treated as on the obverse.

Medal 70 mm. x 70 mm.

* This design also used for the GOLD MEDAL.

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LOUISIANA PURCHASE MEDAL

Grand Prize

Obv. On a shield-shaped flan a circular reserve as described above for the Commemorative Medal. The reserve is imposed upon the shield of the United States.

Rev. An American eagle with outspread wings above a cartouche bearing the inscription · GRAND · PRIZE · | · LOUISIANA PURCHASE · | · EXPOSITION ·. Beneath the reserve, two dolphins, opposed, with a scallop shell above them. The field outside the reserve is treated as on the obverse.

Medal 74 mm. x 65 mm.



LOUISIANA PURCHASE MEDAL

Silver

Obv. On a square planchet, a circular reserve as described above for the Commemorative Medal. The field outside the reserve is filled with a Maltese cross, between the arms of which are fleur-de-lys.

Rev. An American eagle with outspread wings upon a cartouche bearing the inscription · SILVER · MEDAL · | · LOUISIANA · PURCHASE · | · EXPOSITION ·. Beneath the reserve, two dolphins, opposed, with a scallop shell above them. The field outside the reserve is treated as on the obverse.

Medal 67 mm. x 67 mm.

Bronze

Obv. A circular flan similar to the reverse of the Commemorative Medal.

Rev. Similar to above save that the word BRONZE replaces the word SILVER in the inscription.

Medal 63 mm. in diameter.

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	<p data-bbox="311 307 899 371">ROOSEVELT SPECIAL INAUGURAL MEDAL</p> <p data-bbox="275 388 938 594"><i>Obv.</i> . THEODORE . ROOSEVELT . Bust facing to left. Beneath, . PRESI- DENT . OF . THE . . VNITED . STATES . OF . AMERICA . In field at right, . ÆQVVM . . CVIQVE .</p> <p data-bbox="273 601 938 895"><i>Rev.</i> . WASHINGTON . D . C . MARCH . IV . M . C . M . V . In field to left, E . . PLVRIBVS ., at right . VNVM . The figure of an eagle stand- ing on rocks and facing to left. Below, the initials of Augustus Saint-Gaudens and A. A. Weinman in a monogram.</p> <p data-bbox="329 908 933 1115">For an account of the arrangements for this medal, and of the share in its form taken by Mr. Saint-Gaudens, the reader is referred to the correspondence between President Roosevelt and Mr. Saint-Gaudens, printed in <i>The Century</i> for April, 1920.</p> <p data-bbox="308 1127 933 1164">Bronze (cast) medal 74 mm. in diameter.</p>
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AMERICAN
INSTITUTE OF ARCHITECTS

Obv. * PRESENTED . BY . THE .
AMERICAN . INSTITVTE . OF . AR-
CHITECTS * ORGANIZED . M . D .
C . C . C . LVII . Bearded and laure-
ated heads of Polygnotos, Ictinos and
Pheidias facing to the left. Beneath, a
compass, triangle, brush and sculptor's
modelling tool.

Rev. Standing eagle with upraised wings
facing to the left and plucking with his beak
a branch of the laurel rooted in the rock.
On the rock, A . I . A . Below, . A . A .
WEINMAN . M . C . M . VII .

The names of the recipients of this
medal are as follows :

Sir Aston Webb, R. A., London, 1906
Charles Follen McKim, New York, 1909
George B. Post, New York, 1911
Jean Louis Pascal, Paris, 1913

Medal 55 mm. in diameter.



32	MEDALS BY WEINMAN
	<p data-bbox="291 357 957 421">NATIONAL INSTITUTE OF ARTS AND LETTERS MEDAL</p> <p data-bbox="291 443 957 651"><i>Obv.</i> Head of Apollo facing to the right bound with a wreath of laurel, the ribbons filling the field at the back. Beneath the chin, the artist's monogram in a cartouche ; the whole in a circle of dots.</p> <p data-bbox="291 660 957 824"><i>Rev.</i> A Roman lamp with three flames surrounded by rays. Beneath NATIONAL . INSTITVTE . . OF . ARTS . AND . . LETTERS . Border of dots.</p> <p data-bbox="327 833 840 870">Gold medal 57 mm. in diameter.</p> <p data-bbox="291 878 957 1086">The Gold Medal of the Institute is annually awarded to any citizen of the United States, whether a member of the Institute or not, for distinguished service to arts or letters in the creation of original work.</p>
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	<p>The conditions of the award are these :</p> <ol style="list-style-type: none"> (1) " That the medal shall be awarded for the entire work of the recipient, without limit of time during which it shall have been done ; that it shall be awarded to a living person or to one who shall not have been dead more than one year at the time of the award ; and that it shall not be awarded more than once to any one person. (2) " That it shall be awarded in the following order : First year, for Sculpture ; second year, for History or Biography ; third year, for Music ; fourth year, for Poetry ; fifth year, for Architecture ; sixth year, for Drama ; seventh year, for Painting ; eighth year, for Fiction ; ninth year, for Essays or Belles-Lettres—returning to each subject every tenth year in the order named. (3) " That it shall be the duty of the Secretary each year to poll the members of the section of the Institute dealing with the subject in which the medal is that year to be awarded, and to report the result of the poll to the Institute at its annual meeting, at which meeting the medal shall be awarded by vote of the Institute."
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The first award—for sculpture—was to Augustus Saint-Gaudens. The medal was presented to Mrs. Saint-Gaudens at the meeting held in memory of her husband, November 20, 1909.

The second medal—for history—was awarded to James Ford Rhodes, 1910.

The third medal—for poetry—was awarded to James Whitcomb Riley, 1911.

The fourth medal—for architecture—was awarded to William Rutherford Mead, 1912.

The fifth medal—for drama—was awarded to Augustus Thomas, 1913.

The sixth medal—for painting—was awarded to John Singer Sargent, 1914.

The seventh medal—for fiction—was awarded to William Dean Howells, 1915.

The eighth medal—for essays and belles-lettres—was awarded to John Burroughs, 1916.

The ninth medal—for sculpture—was awarded to Daniel Chester French, 1917.

The tenth medal—for history or biography—was awarded to William Roscoe Thayer, 1918.

The eleventh medal—for music—was awarded to Charles Martin Loeffler, 1919.

KATHERINE JANE . | WEINMAN
IN . HER | FOVRTH YEAR . Child's
bust facing to left with knitted cap and
sweater. Beneath the bust . M . C . M .
XV . In field to right AAW in monogram
dividing FE—CIT. The whole in a decora-
tive border of holly.

Medal 97 mm. in diameter.



KATHERINE . | JANE . Child's head facing to right in a border of marguerites in clusters of three, the stems tied by a fillet below the neck. In field to left AAW in monogram dividing FE — CIT.

Medal 97 mm. in diameter.



40	MEDALS BY WEINMAN
	<p data-bbox="560 492 689 522" style="text-align: center;">BOBBIE</p> <p data-bbox="291 544 957 917">In a high chair facing to the left, a child clasping a "Teddy Bear". In the exergue, BOBBIE in a cartouche; at the left, a duckling; at the right, a puppy. The field on either side of the cartouche is filled with decoratively arranged fillets. To the right on the arm of the chair, AAW in monogram. Oblong plaque, with top slightly curved.</p> <p data-bbox="327 929 750 964">Medal 150 mm. x 120 mm.</p>
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MOUNT SINAI MEDAL

Obv. In the centre an upright female figure, with drapery in graceful lines and a cuirass decorated with a caduceus, supports a youth with bandaged head. His left hand grasps a broken sword; his shield is still upon his arm. At the back, a glowering man with helmet, cuirass and greaves, supports a sword on his right shoulder and holds in his left hand a four-headed serpent. At the lower left, a tree stump and ruins in flames. At the right, an oak tree from which a single branch has sprouted.

Rev. A wreath with ornate fillets and caduceus. At left, 1917. At right, 1919. Inscription reads IN · COMMEMORATION | OF · THE · PATRIOTIC · SERVICE · OF · THE | PHYSICIANS · SURGEONS · AND · NURSES | COMPRISING · THE · MOUNT SINAI · HOSPITAL · UNIT · BASE · HOSPITAL · NUMBER | THREE · DURING · THE · WORLD · WAR | THIS · MEDAL · IS · PRESENTED | BY · THE · TRUSTEES · OF · MOUNT | SINAI · HOSPITAL · TO —. Below, ribboned panel for a name.

Bronze medal. 75 mm. in diameter.

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SALTUS AWARD MEDAL

Obv. A slender female figure, wearing a Phrygian cap, seated beneath a tree. In her left hand she holds the model for a medal; in her right, a modelling tool. About the rim PARVA · NE · PEREANT, (the motto of The American Numismatic Society). At the lower right, the monogram of the artist. In the exergue A · N · S · and the device of the Society—a twig with three oak leaves and three acorns.

Rev. In a slightly sunken circular field, Pegasus mounting to the left. Cloud masses, partly covering the rayed disc of the sun, fill the field at the lower left. The inscription in concentric lines reads THE · J · SANFORD · SALTUS | AWARD · MEDAL | OF · THE · AMERICAN · NUMISMATIC · SOCIETY | FOR · SIGNAL · ACHIEVEMENT | IN · THE · ART · OF · THE · MEDAL ·. Dividing the inscription on the left, a branch of laurel; on the right, a branch of oak.

This silver medal is awarded annually for artistic achievement. The fund which



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	<p>establishes this award provides a small income which is set aside for the purchase of the artists' medals not already in the collection of The American Numismatic Society.</p> <p>Awards:</p> <p>James Earle Fraser, 1919 Adolph Alexander Weinman, 1920 John Flanagan, 1921</p> <p>Medal 78 mm. in diameter.</p>
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UNILLUSTRATED MEDALS.

ALICE HELEN HETTINGER

1898 Circular medallion 75 mm.

CHARLES KECK

1898 Rectangular plaque
85 mm. wide x 125 mm.

LOUISE HETTINGER

1900 Circular medallion 75 mm.

LOUISE HETTINGER

1900 Upright rectangular plaque,
young girl with hoop.
133 mm. wide x 230 mm.

C. M. S. (Stark)

1910 Rectangular plaque
60 mm. wide x 127 mm.

JULIUS THEODORE MELCHERS

Circular medallion 105 mm.

THE EDISON MEDAL

(Sketch for a competition)
75 mm.

AND MONOGRAPHS

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NUMISMATIC NOTES
AND MONOGRAPHS

No. 8



THE MINT OF THE
PHILIPPINE ISLANDS

By GILBERT S. PEREZ

THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
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With many plates, illustrations, maps and tables. Less than a dozen complete sets of the Journal remain on hand. Prices on application. Those wishing to fill broken sets can secure most of the needed volumes separately. An index to the first 50 volumes has been issued as part of Volume 51. It may also be purchased as a reprint for \$3.00.

The American Numismatic Society. Catalogue of the International Exhibition of Contemporary Medals. March, 1910. New and revised edition. New York. 1911. xxxvi, 412 pages, 512 illustrations. \$10.00.

The American Numismatic Society. Exhibition of United States and Colonial Coins. 1914. vii, 134 pages, 40 plates. \$1.00.

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NOTES & MONOGRAPHS

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The Mint of the Philippine Islands in the Old Intendencia Building

THE MINT OF THE PHILIPPINE ISLANDS

BY
GILBERT S. PEREZ



THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
NEW YORK
1921

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The Author is indebted to Dr. A. P
Fitzimmons, First Director of the Mint,
for courtesies, information, illustrations
and helpful suggestions.

THE MINT OF THE PHILIPPINE ISLANDS

By GILBERT S. PEREZ

THE first colonial mint of the United States was opened on the fifteenth of July, 1920, at Manila, thus instituting a new departure in our mint procedure. Some years previously this policy had been adopted by England, whose colonial mints had been established in Australia, India and Canada. Since 1903 the United States Government had minted the coinage for the Philippine Islands at Philadelphia and San Francisco. Expediency, economy, the possibility of quicker deliveries, together with the Government's policy of helping the Filipinos to participate in the management of domestic affairs, were the determining features for the establishing of the Manila mint. On

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February 8, 1918, the Philippine Legislature passed a bill appropriating 100,000 pesos, half the original appropriation, for the construction of machinery for a new mint. This bill was signed by Governor Harrison eight days later.

The machinery was designed and built at Philadelphia under the supervision of Clifford Hewitt, then chief engineer of the United States mint. In June, 1919, it was assembled, tested and found satisfactory; it was then shipped to the Philippine Islands via the Panama Canal, arriving at Manila in November in perfect condition. Mr. Hewitt reached Manila at the end of the month and undertook the installation of the machinery.

Although the Manila mint is probably the smallest in the world, it is one of the finest and most modern. It is located on the lower floor of the old Intendencia Building fronting the Pasig River. This building also contains the offices and the hall of the Philippine Senate, and the offices of the Treasury of the Philippine Islands.

On October 11th, three months after its inauguration, the mint narrowly escaped destruction by fire which gutted the two upper floors of the Intendencia Building. The Senate hall, the offices of the Insular Treasurer and other governmental offices were totally destroyed, but the mint on the lower floor was so little damaged that minting was resumed next morning.

The mint was formally opened on Thursday morning, July 15th. A copper ingot was taken from the furnace, cooled, rolled into a thin strip between the heavy rollers of a machine, shot beneath the smoothly working pistons of another machine whence it emerged in the form of many small discs and then placed in the stamping machine — and there came into existence the first piece of money ever coined under the American government in the Philippine Islands. The first one-centavo piece was coined by Governor-General Harrison under the direction of Mr. Hewitt. Speaker Osmeña of the House of Representatives, in a like manner, struck off the first medal (designed

by Mr. Clifford Hewitt) which was issued in commemoration of the opening. On the obverse of the medal appears the profile of President Wilson; the reverse shows the figure of Liberty protecting and instructing beginners in the art of coining, holding in her right hand a pair of scales to demonstrate the absolute necessity for care and exactness in operation which all mint work demands. On the first day two thousand of these medals were minted.

The official party at the formal opening included the Governor-General and Mrs. Harrison; Speaker Osmeña; Mr. Kwei Chih, Chinese Consul-General; Hon. Alberto Barreto, Secretary of Finance; Dr. A. P. Fitzimmons, Director of the Mint and former Treasurer of the Philippine Islands, and Mr. Clifford Hewitt, the mint's metallurgist.

The mint is prepared to coin all bronze, nickel and silver money needed for circulation in the Islands; it has a daily output of 85,000 pieces, and an annual capacity of 25,000,000 coins, made possible by twenty electrically driven machines.

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<p>In order to insure the legal fineness of bullion received as deposits and of ingots for coinage purposes, as well as to make accurate payment to depositors of metal, a well equipped assay department has been instituted. Such an establishment will have a stimulating effect on the mining of gold and silver throughout the Islands. Gold is mined in considerable quantities in Baguio, Paracale and Aroroy, and silver in the Island of Marinduque. As the gold mined here has heretofore been refined by the cyanide process it was not of very high fineness, but with the improved electrolytic process it is possible to obtain the fineness of 999.9 plus.</p> <p>With regard to the melting department, the output of each melting furnace, figured on an eight-hour day basis, would be approximately 2000 pounds. A specially designed settling chamber has been built which reduces the silver melting losses to a minimum of three-quarters of an ounce on every thousand ounces melted.</p> <p>The rolling and cutting department consists of two 50 h. p. electrically driven</p>	
AND MONOGRAPHS	

machines of the most modern type, fitted with hardened steel rolls. They are equipped with a patented adjustment whereby the rolls can be regulated to one ten-thousandth of an inch. By this accurate adjustment there is no difficulty in producing perfectly uniform strips of silver so that when planchets are cut they will be within the legal tolerance of weight.

An automatic coin reviewing machine has been installed. The coins are dumped into a distributing hopper which drops them on a travelling belt where each coin passes slowly before the reviewer's eye and the condemned pieces picked out. Those which are perfect pass on and fall into a box at the end of the machine. They are counted by means of a coin counting board which holds five hundred pieces. An experienced operator of this board can handle 2000 coins of any denomination per minute. As they are counted they are placed in bags.

A complete mechanical department has also been installed, with fully equipped machine, blacksmith, electrical, plumbing



Officials and Employees of the Mint



Interior of the Mint

and carpenter shops. This department is very necessary for a successful operation of the mint, as all tools and special medal or coin dies may be made in these shops at a minimum cost.

The annealing and cleaning department consists of an automatic rotary annealing furnace. All the coin blanks are run through this furnace at a temperature of 1400 degrees Fahrenheit, as continual rolling hardens metal and annealing restores the original softness to the coin blank. In this process the coin blanks become oxidized or tarnished. This oxidization is removed by rumbling and burnishing them in water and compound in a special rotary washing machine. The blanks are then placed in a centrifugal coin dryer which extracts all moisture.

The weighing system consists of a large six-foot bullion balance with a capacity for weighing 10,000 ounces of coin, clippings or ingots. The coins are weighed individually by an automatic weighing machine to determine which fall within the legal law of tolerance, which is less

than $1\frac{1}{2}$ grains over or under the legal standard. These automatically controlled scales are enclosed in glass, designed to weigh to $\frac{1}{16}$ of a grain and are entirely mechanical in operation. There are 10 weighing beams in each scale, and each beam will weigh 10 coins a minute — 100 coins on the 10 beams — approximating a daily output of 48,000 coins figured on an eight-hour day basis. This machine separates the heavy and light pieces from those that fall within the tolerance allowed. All that is required of the operator is to keep the ten feeding tubes filled with coins, as the machine does the weighing and separating into different boxes.

The Director of the Mint, Dr. A. P. Fitzimmons, former Insular Treasurer of the Philippine Islands, was greatly instrumental in securing the appropriation for the mint and in organizing it. Practically all of the employees are Filipinos; and having no previous mint experience, the present efficiency is attributed to the painstaking instruction of Mr. Hewitt and to the mechanical aptitude of the Filipino people.

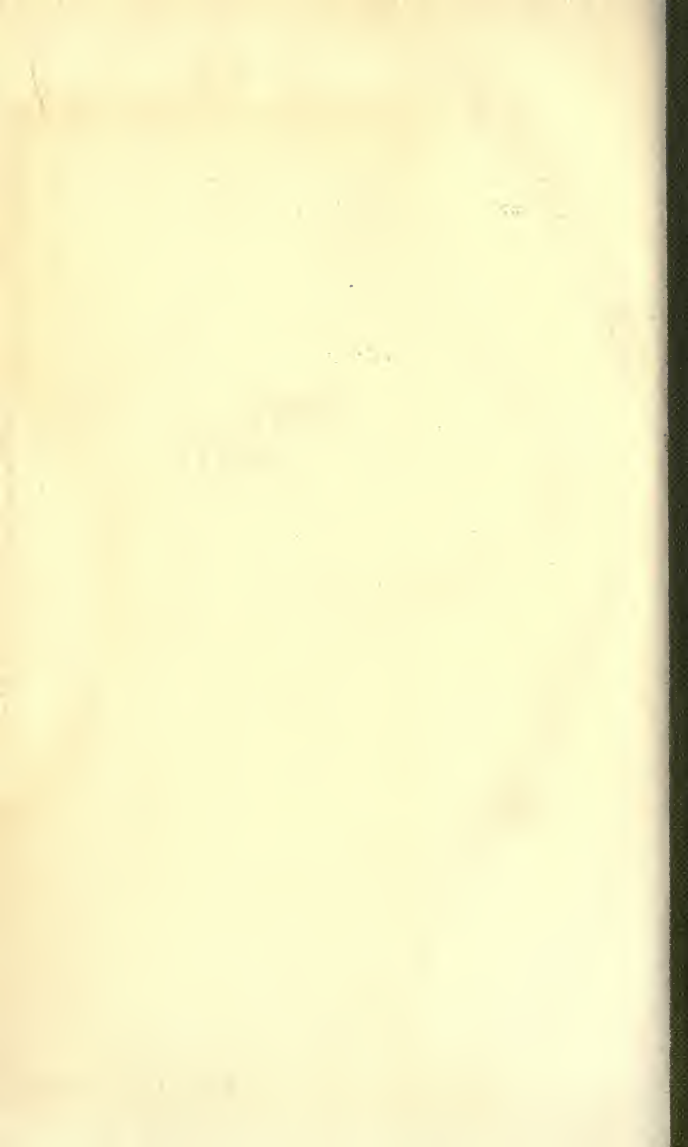


Medal Commemorating
the Opening of the Mint
Manila, 1920









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